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Monographs Series : 2

Archaeology of Karnatak

(Being a brief survey of the
Archaeological remains of Karnatak)



Author .

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Introductory Note

The Archaeology of Karnatak, as the title indicates, covers a wide field of antiquarian remains in its purview. Man's occupied centres in the pre-historic and proto-historic past, in Karnatak have been noted with reference to the cultural remains such as pottery, tiles, ornaments, shells, coins, *terra cotta* objects, etc. explored in the region. His belongings and associations in life are made known from these antiquities of great interest for the cultural history of the land. The megalithic remains represent the next stage of human civilization when memorials and residential quarters were built of huge undressed stones in the form of "Dolmens and Cairns". Then his artistic mode of life is exhibited in the works of art produced by him. This is briefly surveyed in the next chapter on "Art and Architecture of Karnatak." This is a vast subject requiring a more elaborate treatment in a separate volume. But, for the subject on hand, I rest satisfied to give only a few salient features of Karnatak art and at the same time indicate the vastness of the material by giving short descriptions of the prominent temples and specimens of art. In the next chapter on Karnatak Epigraphy, which marks an advanced stage in human

progress when man began to record and register his doings for the benefit of posterity, a broad account of the nature and contents of the inscriptions lying in different parts of Karnatak has been attempted and the last chapter deals with the System of Coinage that prevailed in ancient Karnatak which exhibits man's capacity as administrator and ruler—another aspect of his life. The details derived from the study of the archaeological remains thus surveyed and described in Four Books have been compressed in the form of a connected narrative in the First Book "Historical Resume" which makes both a good back-ground and introduction for understanding the remaining Books in the Volume.

As far as I know, this is the first single attempt made to bring together within an easy compass the antiquarian remains of Karnatak so as to yield a connected tale of her activities in the past, though separate attempts have been made by scholars to deal with the limited scope of her doings independently such as "Chalukyan Art", "Bas-reliefs of Badami", etc. The materials gathered and indicated are new and the method of presentation has been "narrative" so as to afford an easy reading to the layman as well as to the scholar. The work based as it is on the most un-contested materials discovered in the land, and thus laid on a scientific foundation,

does not, however, boast of an analytical treatment in the description of the remains, usually found in the reports of archaeological excavations, as it is designed to take the layman or uninitiated reader into the portals of "archaeology" which let into the vaster and more intricate bases for the knowledge of wider cultural history of humanity.

The preparation of the Volume had been planned by me some ten years ago, in view of the fresh data recovered from the exploration of ancient sites in Karnatak. Due to heavy preoccupations, private and official, encroaching upon my time and energy, this could not materialise when I was in office. A rough sketch of the work had, however, been made for the Press when leisure permitted me. In the mean while I selected a few topics in Karnatak archaeology and published my studies on them as separate treatises such as "Pre-history and Proto-history of Karnatak" or as separate contributions to learned journals such as *Art and Architecture of Ancient Karnatak* and *Dolmens and Cairns of Karnatak*, *Some Copper Coins of the Vijayanagara dynasties*, etc., etc. These papers and books have been utilised in preparing the *Archaeology of Karnatak* now presented to the scholars in the following pages. I have also received valuable information from the Reports, Memoirs, Bulletins and journals of the Archaeological Departments

in India and of the learned Associations and Bodies in preparing this volume. I record my thank-fulness to these bodies and the individual scholars whom I have mentioned as authority in the book.

During my tenure as Director of the Kannada Research Institute, this brochure could not be published as the Press copy prepared for printing had to be revised and as also the local Press to which the work had been entrusted was fully engaged with the printing of other research works of the Institute already undertaken. After retirement, in May 1953, I pursued the subject and prepared the whole material as found in the book and pushed it through in print. The Manager, Sadhana Press, Sri. S. G. Kulkarni, thanks for his enlightened enthusiasm and love for cultural studies, has spared no pains to expedite its printing and finish the whole publication in the best artistic manner. It has to be specially mentioned that the Press was not able to use diacritical marks in printing. This had to be accepted as an inevitable draw-back, since it was an impossibility to expect this scientific accuracy in printing such technical works in Karnatak especially at Dharwar.

In view of the lack of proper library facilities, I am conscious of the short-comings in a scientific work like this. But that was inevitable. Therefore, I crave the indulgence of the scholars to treat this as

a succinct summary of the researches made available in the form of a narrative, to the students of history and culture. I shall feel amply rewarded if my hope to excite the antiquarian instinct of research scholars of Karnatak is fulfilled by this maiden attempt on Karnatak Archaeology.

13-9 1953
Malamaddi, Dharwar.

R. S. Panchamukhi

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Archaeology of Karnatak

I A Historical Resume

I. Introductory

The history of Karnatak presents a glorious picture of the achievements of man in all fields of activity. In political institutions, administrative machinery, empire-building, religious and spiritual career, art and architecture, literature and other fine arts as well as in cultural integrity, Karnatak held a unique place of honour among the sub-nations of India and has made a solid contribution to the purity and greatness of Indian culture. A brief account of the contribution of Karnatak in the various branches mentioned above is given in the following bird's eye-view of the history of Karnatak from the earliest period down to the present age.

II. The geographical extent of the Kannada speaking area, ancient and modern.

The Karnatak or Kannada-Nadu was in the ancient period, coterminous with the country where Kannada was the spoken language. From a study of the find-spots

of the Kannada inscriptions known to exist and from the evidence of literary statements, it is found that the Kannada Language was current in the area, at least in and from the 9th century A. D., bounded on the North by the Godavari, on the East by the Vengi-Vishaya (Guntur and Krishna Districts roughly) of the Eastern Chalukyas, on the South by the Kaveri river and on the West by the Arabian sea adjoining the strip of Konkan. The Northern and Eastern limits have in the course of centuries been pulled down to the Bhima on the North and to the Karnul and Anantapur Districts on the East. Similarly the Southern boundary has been pushed up. But, for the present survey, the geographical extent between the Godavari and the Kaveri, which is roughly the Dakshinapatha (or the Dekkan) of the Puranas is taken to comprise the ancient Karnatak where several royal households rose and made a solid contribution to the greatness of Karnatak culture.

III. Karnatak in the pre-historic period

The geographical factor has moulded the history of Karnatak to an advantage which has lent an unsurpassable tillip to the expression of the latent powers of human mind and body. The Dekkan plateau in the centre of which Karnatak is situated, is one of the oldest spots on earth where human

life first appeared. One is expected accordingly, to unearth cultural remains of the highest antiquity buried up in the debris and mounds, that will be informative of the life of man lived in the hoary antiquity when civilization had not yet introduced the instruments of advanced social and scientific contacts. In the pre-historic age, the culture represented by the finds unearthed at Herakal, khyad (B. japur District), Chandravalli (Mysore), Maski (Hyderahad) etc., is assessed to be of a high type comparable to that of any part of India and it is suggested that in the early period prior to the Mauryan rule in the 3rd Century B. C. Karnatak had established a commercial and cultural intercourse with the Western and Eastern nations that held the custody of human progress. From the sites newly brought to light by the Explorations conducted by the Kannada Research Institute, Dharwar it may confidently be asserted that Karnatak had a continued stream of culture flowing from the Palaeolithic Age down to the Early Iron Age preceeding the Historic epoch of Mauryan Age (see chapter 11).

IV. Four periods of Karnatak History

The history of Karnatak may be divided roughly under four periods, Viz ,

(I) ANCIENT PERIOD - EARLY

(i) Mauryan, 3rd century B. C.

- (ii) Andhras or Satavahanas, 1st to 3rd century A. D.;
- (iii) Kadambas, 4th century to 6th century A. D.;

(II) ANCIENT PERIOD—LATE

- (i) Early Chalukyas, 6th Cent. A. D. to 8th Century A. D.
- (ii) Rashtrakutas, 8th century A. D. to 10th Century A. D.; with the great feudatory powers the Gangas in Mysore and the Nolambas in the Anantapur and Karnul Districts and parts of the adjoining Mysore territory.
- (iii) Later Chalukyas of Kalyani, 10th Century A. D. to 12th Century A. D.

(III) MEDIAEVAL PERIOD

- (i) The Kalachuryas, latter half of the 12th century A. D.
- (ii) The Yadavas of Devagiri, 12th Century to 14th Century A. D.
- (iii) The Hoysalas of Dorasamudra, 12th Century to 14th Century A. D.;

(IV) EARLY MODERN PERIOD

The Vijayanagara Dynasties, 14th Century A. D. to 16th Century A. D.

It may, however, be observed that the history of a nation is not merely a record of the exploits or achievements of a royal family, but is a complete account of the basic life-currents that express themselves in various forms in the activities of the kings and people of the contemporary period. With this underlying idea, the above division has been made, but the dynastic names have been adopted merely to distinguish one period from the other chronologically.

V. Karnatak under the Mauryas and Andhras

The Mauryan sway over Karnatak is evidenced by the edicts of Asoka discovered at Koppal, Maski, Siddapur, Jatinga Rameswar, and Brahmagiri. The Siddapur edicts were addressed to the officials at Isila by the Ayaputa (Aryaputra) and Mahamata (Mahamatra) at Suvarnagiri, which shows that Isila with its surrounding region near Siddapur, the find-spot of the edict, was included in the Mauryan empire. Suvarnagiri is supposed to be the Mauryan capital of the Dekkan during the reign of Asoka. The trace of the Maurya occupation of the Dekkan and Karnatak can be seen in the tradition about the pigmy houses (i. e. dolmens) being called *Morera-angadi* (i. e. shops or dwellings of the Mauryas), and in the existence of the Maurya chieftains holding a territory in Konkan who were subjugated by Pulikesin II in the 7th century A.D. After the Mauryas, the Karnatak

was held by the Andhras, their semi-independent feudatory rulers of the Satahani-hara, or Satahani-Rattha, modern Bellary District. The Andhras ruled over a vast territory from the Godavari on the North to the Pennar in the South. The Makedoni inscription of Pulumavi II refers to Satahani-hara which is found mentioned in the Hirehadgalli copper-plates of Pallava Sivaskandavarman, under the form *Satahani-rattha*. This suggests that the Southern portion of the Andhra kingdom i. e. the Bellary Dist. etc., passed to the Pallavas who succeeded the Andhras in a portion of their territory. The Pallava hold did not continue long, in Karnatak. From the Talgunda inscription of Kadamba Kakutsthavarman it is learnt that Mayurasarman the Kadamba ancestor wrested from the Pallavas the Srisaila region and held practically an independent sway in a country bounded on the west by the sea and on the east by Prehara (?). The record narrates a thrilling account of how a Brahmin youth who had come to the Ghatikasthan (University College) of Kanchi to prosecute his further studies, found an occasion to carve out a new kingdom finally acknowledging, though nominally, the power of the Pallavas. The Chandravalli inscription of this Mayurasarman records brilliant successes of the king over Trekuta, Abhira, Pallava, Pariyatraka, Saka-sthana, Sayindhaka, Paunnata and Mokari. With the rise of the Kadamba Mayurasarman begins the political career of Karnatak which in the course of the centuries, grew into a strong power to

be reckoned with, and became ultimately the meeting ground of all nationalities and races during the Vijayanagara period i. e. between the 14th and 16th Century A. D.

VI. The Kadambas the first Kannada dynasty.

The Kadambas had contracted matrimonial alliances with the first-rate political powers of India i. e. the Guptas of Pataliputra in the North, the Vakatakas of Central India and the Gangas of Talkad in the South. They remained till the end, the inveterate foes of the Pallavas of Kanchi whose yoke they shook off under Mayurasarman. They patronised both the Vaidika and Jaina worship and encouraged the cultivation of fine arts. The poets Samantabhadra, Parameshthi, Sivakumara-Mandhatri patron of Kundakundacharya the author of *Prabhritasara* etc., are supposed to have flourished during the Kadambas rule in Karnatak. The last prince of the family was Harivarman during whose time the kingdom passed to the Chalukyas of Badami who apparantly were holding a subordinate position under Harivarman.

VII. The first Kannada Empire under the Chalukyas of Badami

The first genuine record of Pulikesi I, the founder of the Chalukya kingdom hails from Badami and records

the construction of Vatapi-durga (Badami Fort) in Saka 465. His grandson Pulikesin II was a most powerful king of the family who carried a campaign of conquests throughout the Dekkan and South India and defeated Parmesvara Harshavardhana of Kanauj on the banks of the Narmada. After putting down the rebellion of the feudatory chiefs consequent on the death of Mangalesa on the battle-field, Pulikesin II became the master of the region consisting of ninety-nine thousand villages (*Nava-navati-sahasra grama bhajam trayanam agamad-adhipatitvam yo Maharashtrakanam*—Aihole inscription of Pulikesin II). He was the first Karnatak sovereign to establish an empire South of the Vindhya and proclaimed himself the sole lord of the entire Dekkan and Karnatak including the Telugu country. Hiuen Tsiang the Chinese pilgrim visited his court in about 640 and recorded the glory of Karnatak and the Kannada people during his reign. Pulikesin II had received a Persian embassy and exchanged letters with the king of Persia. He appointed his brothers and sons in the newly conquered territory as Viceroys, keeping to himself the original kingdom in the western Dekkan which is continuous with the ancient Karnatak comprised in the three Maharashtrakas of the Aihole inscription of A.D. 634. His brother Kubja-Vishnavardhana held charge of the Andhradesa and became the founder of the Eastern Chalukya family in Vengidesa.

Pulikesin II scared away the powerful Pallavas

monarchs Mahendtavarman and Narasimhavraman. The latter prince with a confederacy of the Chola, Pandya and Kerala is said to have occupied the Chalukya kingdom for about 12 years; but he was ousted from Badami by Vikramaditya I, son of Pulikesin II, who recovered the lost glory of his family by driving out the foreign hand and consolidating his own power with the aid of the feudatory chiefs the Gangas, and his son and grandson Vinayaditya and Vijayaditya respectively. Vijayaditya's son Vikramaditya II carried his arms to the Pallava capital Kanchi "captured Kanchi and inspected the riches of the Rajasimhesvara temple, gave them again to the God" (Kanchiyan kondu Rajasimhesvarada dhanaman-kandu maguldu devargge bittar). During the Chalukya sovereignty, Karnatak had become a power to be reckoned with by the contemporary rulers of India and foreign nations. Her contribution to the cultural greatness and integrity of India is of varied magnitude and character. The Chalukya court patronised the renowned poets of their age Viz., Damodara, Bharavi and Ravikirti the last of whom is extolled in the Aihole inscription as "inspired in poetry by Kalidasa - and Bharavi (Kavitasrita-Kalidasa-Bharavi Kirtih)".

The Gangas of Talakadu continued to be the vassals of the Chalukyas and were like their masters, patrons of learning and culture. Durvasita was the author of a commentary on the 15th canto (or 15

cantoës) of Bharavi's *Kiratarjuniya* and of a grammatical work called *Sabdavatara*. He rendered into Sanskrit, Gunadhya's *Vaddakathe* in *Paisachi*.

The Chalukyas evolved a special style of architecture with the combination of the Northern vertical and the Dravidian or Pallava horizontal tiers of the *Gopuras* and this ultimately became the originator of the late Hoysala style in which the temples of Belur, Halebid and Somanathapur are worked out with elaborate details. The cave temples at Badami, and the clusters of temples at Pattadakal and Aihole erected by the Chalukyas, furnish the basic principles on which the sculptural and architectural styles of the Dekkan and Karnatak were produced. Just as the Guptas who succeeded the Mauryas and Kushanas of the Buddhist persuasion, were staunch votaries of the Vaidika and Pauranika religion and ushered in an age of renaissance in all fields of cultural activity, similarly the Chalukyas of Badami coming as they do after the Buddhist and Jain rule of the Andhras (*Satavahanas*), the Chutus of the West coast and the Kadambas and Gangas, encouraged the study of Vedic lore, displayed the Pauranik legends on temple walls and built numerous temples for Siva and Vishnu of the Pauranik Pantheon.

The Pauranik episodes of the Mahabharata, the Ramayana, the Bhagavata, the Harivamsa and the Saiva Puranas are figured in panels of beautiful sculptures on the walls and pillars of temples at Pattadakal, Aihole and Badami. A few of them at Pattadakal are labelled in contemporary Kannada script of the 8th century A. D. Some of the world-famous paintings at the caves of Ajanta were the productions of the Early Chalukyan artists. One of them is supposed to depict the Persian embassy received by Pulikesin II. The beautiful fresco paintings on the front eave of the third cave at Badami (6th Century A. D.) are comparable to the Ajanta paintings in their graceful expression and effective colour-combination. These are the earliest relics of art in South India, those at Sittannavasal in the Pudukottai State being of the contemporary period (7th century A. D.)

VIII. Karnatak under the Rastrakutas and Gangas.

The 8th century A. D., saw the decline of the Chalukya power. The Rashtrakutas who are referred to in earlier inscriptions as Rattagudi, Rattagudlu or Rattas rose to power under Dantidurga who crushed the Karnata army of the Chalukyas and occupied their territory. He was succeeded by his uncle Krishna I who is said to have "turned the Boar (of the Chalukyas) into deer". Krishna I excavated the

famous monolithic Kailasa temple out of a single rock at Ellora which is one of the wonders of the world. He nominated his second son Dhruva to the throne to the exclusion of his eldest son Govinda II who had acted as Yuvaraja. This brought about a fratricidal war in which the Ganga Sivamara Saigotta and his son Marasimha I sided with Govinda II. Dhruva was successful in the end. His son Govinda III ascended the throne in about A. D. 793. He carried extensive campaigns into North as well as South India. In his North Indian campaigns, he defeated the invincible Gurjara Pratihara Nagabhata and the Pala king Dharmapala and proceeding Northwards inscribed the letters "Victory" on the peaks of the Himalayas. In the South, the family-enemies the Pallavas were met on several battle-fields and were ultimately made to pay an annual tribute to the Rashtrakuta sovereign at Malkhed. In a copper-plate grant of A. D. 804, Govinda III is stated to have encamped at Ramesvara-tirtha on the Tungabhadra with a view to the exacting of tribute from Pallava Dantiga i. e. Dantivarman. His commands were obeyed by the Eastern Chalukya king Vishnuvardhana IV who was made to supervise the building of the ramparts of the capital city Manyakheta.

Kamba or Stamha the elder brother of Govinda

III had rebelled against the throne, with a confederacy of twelve princes Govinda crushed the confederacy and showing mercy on his brother placed him in charge of Ganga-mandala. After the fall of the Chalukyas, the Gangas could not reconcile with the new power and were always at war with the Rashtrakutas until Amoghavarsha-Nripatunga made a shrewd move by giving his daughter Chandrobballabbe in marriage to Butuga. This brought about cordial relations between the two families which were cemented by further matrimonial alliances.

Amoghavarhaha succeeded his father Govinda III as a young prince in A. D. 814. He was helped in the administration of the country by his paternal cousin Karkaraja of Gujarat and a senior councillor Patalamalla. His rule though disturbed during the first few years, was on the whole quiet and eventful. He patronised poets and philosophers and himself was an accomplished man of letters. His long reign (A. D. 814-878) of about 65 years witnessed the rise of Jinasena, Gunabhadra Sakatayana, Kavisvata if he is different from Amoghavaraha himself, author of the *Kavirajamarga* and Mahaviracharya author of *Ganita-sangraha* etc., etc.,. He is stated to have cut off his left finger and offered it to Mahalakshmi to avert some calamity to the people:

*Te-p-yekaikam = atarpayan kila Mahalakshmai sa Vamangulim
Lokopadrava-samtaye sma disati sri Vira-Narayanah*

-Sanjan plates

His piety and loyalty to Jaina faith induced him to abdicate the throne on many occasions (cf. *vivekat-tyakta-rajiyena* of his *Prasnottaramalika*) Amoghavarsha I was succeeded by his son Krishna II in A. D. 878 who ruled upto A. D. 912. The wars with the Gurjara - Pratiharas of Kanauj continued and Krishna II is stated in the Bagumra plates of his grandson Indraraja, to have vanquished the Gurjara monarch who was apparently Bhoja I grandson of Nagabhata. The most important event of his reign was to exterminate the race of the first Gujarat branch of the Rashtrakutas who under Maharajadhiraja Karkaraja had become the sole lords of the Latamandala. Govinda III had ousted them from a part of this mandala and appointed his own brother Indraraja III as Viceroy over it. It was during Krishna II's reign that they were driven out of the Lata-desa and their country was annexed to the Rashtrakuta dominion.

IX. Gujarat and Andhradesa under the kings of Karnatak for over 500 years.

It may be noted in passing that Gujarat (Lata-desa) was under the direct control of the rulers of Karnatak from very early times. After his digvijaya

campaign of A. D. 610-11, Pulikesin II placed Latamandala in charge of his brother Dharasraya Jayasimhavarman whose descendants held the Province until the rise of the Rashtrakuta Dantidurga. Avanijanasraya Pulikesivarman of this Gujarat Chalukya branch was ruling over Lata-desa contemporaneously with the Gujarat Rashtrakuta king Mahatajadhiraia Karkaraja who must have subdued Avanijanasraya Pulikesin or his descendant and occupied the whole of Lata-desa with Khetaka, in the middle of the 8th century A. D. (Circa 758). In his North-Indian campaigns of cir A. D. 804, Govinda III conquered the rulers of Lata and made his brother Indra III the lord of Latesvara-mandala. The members of the conquered Rashtrakuta branch of Karkaraja were finally driven out and subdued by Krishna II in about A. D. 880 and their territory annexed to the Rashtrakuta empire. Krishna's viceroy in Harshpurapranta in Latamandala was Mahasamanta Pranchanda of Karnataka. After some time, this territory must have passed to the second Gujarat branch started by Indra III, which looked upon Karnatak as its home Province. This continued till about the fall of the main Rashtrakuta line when Paramara-Munja had occupied it. But, again, the country passed to Taila II who uprooted Munja in about A. D. 973. Soon after, Mularaja the ancestor of the Anhilwad Chalukyas

killed Barappa the representative of Taila II in Gujarat and occupied Latadesa. During the subsequent period the destiny of Gujarat was tossed between the Paramaras, the Chalukyas evidently the descendants of the Gujarat branch of the early Chalukyas of Badami, and Yadavas of Devagiri until the Hindu kingdoms were engulfed by the Mahomadan invasion from the North in the 12th century A. D. Thus, for about 5 centuries of years i. e. from the 7th to 12th century A. D., Gujarat owed its political security and cultural integrity to Karnatak which like-wise fed the famished nerves of the Andhrades (Telugu country) by implanting the Eastern Chalukya Dynasty on the soil of Vengi-mandala in the 7th century A. D.

After Krishna II, his grandson indra III occupied the Rashtrakuta throne in about 912. The next powerful monarch of the family was Krishna III who ascended the throne in A. D. 939-40. He carried his arms far and wide and the Jura Prasasti engraved on a stone tablet at Jura in Maithara State in Central India recording his birudas and exploits in Pure Kannada Language and alphabet, bears ample testimony to his north Indian campaign of conquests. In the South, he killed the Bhoja prince Rajaditya on the battlefield at Takkolam and made a State entry into the

Chola country (Tondaimandalam) with all pomp and paraphernalia and occupied it for a number of years. His reign is marked with astounding events both in the expansion of territory and the advancement of cultural arts. The Rashtrakuta dominions extended during his reign to the Chedi kingdom (Central India) in the North, Khetaka-mandala (Gujarat) in the west, Tondaimandalam (Tanjore in the Madras Presidency) in the south and the Vengi-rajya (Guntur and Krishna Districts) in the east. This vast territory was administered by him through feudatory chiefs and viceroys employed under his command. His trusted servants were the Gangas of Talakad whose king Butuga II had married his sister Revakanimmadi. Butuga helped his brother-in-law both in the Northern and Southern expeditions and brought him vast treasures of war. It was, during the rule of his grandson Rachamalla that the colossal statue of Bahubali was set up at Sravana-Belgola, by Chamunda the author of Chavundaraya Purana.

X. Expansion of the Karnatak influence under the Chalukyas of Kalyani.

Taila II, a Western Chalukya prince was one of Krishna III's officers ruling in a portion of the Bijapur District. During the weak rule of Kakkala, younger brother of Krishna III, Taila declared

independence and occupied the Rashtrakuta kingdom destroying at one stroke Kakkala, Paramara Munja, Ganga Panchala and others. The Paramaras under Siyaka Harsha had invaded and occupied Manyakheta during the reign of Kottiga, predecessor of Kakkala and wrested Lata-mandala which was finally lost to the Rashtrakutas. Thus, after a glorious career of over 220 years, the Rashtrakutas disappeared from the arena of political life of the Dekkan and Karnatak.

By the close of the 10th century A. D. the old powers disappeared from the scene and a period of renaissance dawned in the political institutions and the religious and economical life of Karnatak. The system of retaining the hereditary chiefs in their conquered province was as far as possible discontinued and the territorial divisions were reshuffled to suit the needs of the administration. Governors or administrators were appointed under the authority of the king, who were liable to transfer from one division to the other. The queens and princes, and the nearest relations of the king were, after an all-round practical training in political sciences, placed in charge of an administrative unit, to ensure security of peace and order in the country.

The greatest adversaries of the Chalukyas of Kalyani were the Cholas of Tanjore who had succeeded

to the Tondaimandalam or the Cholika-Vishaya of the Pallavas in the last quarter of the 9th cent. A. D. The Chalukhyas and the Cholas were constantly at war with each other and invaded each others' territories. To maintain an unchallenged peace in the newly acquired kingdom, Taila II had to put down the turbulent forces of Karahata, Konkana, Malava etc., and his son Irivabedanga Satyasraya defeated Aparaditya of Konkana. Irivabedanga Satyasraya's reign is marked with a series of fights with the Chola king Rajaraja the Great who according to the Hottur inscription had advanced as far as Gonur in the Bijapur District with an army of 900,000 troops. Satyasraya appears to have commanded the resources of the Eastern Chalukya king of Vengi and repulsed the intruder from the Chalukya boundary. The feuds between the Chalukyas and Cholas continued during the whole career of the Chalukyas of Kalyani, the Cholas always taking an aggressive, attempting to create a division in the family of their adversaries. Vikramaditya V, Jayasimha II and Somesvara I had to stem the rising tide of the Cholas and the Chola king Rajadhiraja was killed in the famous battle of Koppam which is identified with Khidrapur near Kolhapur, on the banks of the Krishna or Koppal on the Southern Railway line between Gadag and Guntakal. Somesvara I's successor was Bhuvanaikamalla

Somesvara II who bore an ill-will against his brother Vikramaditya. He had soon to accept defeat at the hands of his brother and divide the sovereignty between himself and Vikramaditya. The most powerful king of the family who extended the Chalukya dominions as far as the Guntur District in the East and Nagpur in C. P. in the North and actively associated himself in the politics of the Chola-Chalukyas of the East Coast, was Tribhuvanamalla Vikramaditya VI, the founder of the Chalukya Vikrama Era in supercession of the Saka Era. This Era was adopted for over one hundred years not only in Karnatak but in the territories where his influence had reached during his life time. The long reign of Vikramaditya VI was occupied with constant wars with the Cholas, the Chalukyas of Vengi, Malava etc. It was during his time that the feudatory chiefs the Kalachuryas, the Hoysalas, the Yadavas and the Kakatiyas came to the fore by taking active part in the wars with the neighbouring kings, who ultimately found an opportunity to establish an independent kingdom during the declining days of the authority at the centre.

XI. Rise of the feudatory chiefs the Kalachurya, Yadava, Hoysala as independent monarchs.

The Chalukya power was subverted by the Kalachurya chief Bijjala in about A. D. 1163 whose

family usurped the throne for about 20 years after which the Chalukya sovereignty was revived by Vira Somesvara IV, for a short while, only to be finally divided by the other rising chiefs the Hoysala, Yadava and the Kakatiya. Thus, the last quarter of the 12th century A. D., saw the rise of the new powers in the Dekkan and Karnatak which however, were constantly at war with neighbouring kings for the expansion of their respective territory.

The age of the Chalukyas of Kalyani was one of renaissance and reform. They were the supporters of the Vaidika and Pauranik religion as against their predecessors the Rashtrakutas and the Gangas who were Jains, and accordingly they patronised art and architecture to promote the revival of the Pauranik school of worship. They were prolific builders of temples for Vishnu and Siva, in superb architectural style which has earned a distinct name as the 'Chalukyan style' in the Indian styles of architecture. The temples of Trikautesvara at Gadag, Kasivisvesvara at Lakkundi, Mallikarjuna at Kuravatti, and clusters of temples at Kukkanur, Haralaballi, Chaudadanpur etc., are the fine productions of this period.

The Chalukyas were great patrons of literature and sheltered poets and philosophers with bounteous gifts. If Pampa and Pontna were the proteges of

the Chalukya Arikesari II, and the Rastrakuta Krishna III, respectively, Ranna was the court poet of Taila II, and Nagavarma, Durgasimha and Chandraraja etc., flourished in the reign of Jayasimha II. Vikramaditya VI patronised Bilhana and Vijnanesvara the famous poet and law-interpreter respectively. His successor Somesvara III was himself a renowned author and composed an encyclopaedic work called the *Abhilashitartha-chintamani*. The Kalachuryas were the stalwart supporters of the Virasaiva renaissance under Basavesvara which ushered in a new era in the religious and philosophic Literature of Karnatak. The New *Vachana* style of composition, the throwing open of the portals of the hidden treasures of the Vedas to the masses irrespective of caste and creed and the introduction of the Siva-Bhakti element in Kannada Literary works were some of the important contributions of the renaissance to the religious and social life of Karnatak.

The Yadavas of Devagiri who first appeared as powerful feudatory chiefs under Chalukya Somesvara I and Vikramaditya VI, became under Bhillama (1187-91 A. D.), independent rulers, of the Chalukyan territory, north of the Krishna. The Hoysalas occupied the portion to the South of the Tungabhadra and the doab between the Krishna and the Tungabhadra remained a covetable land for which constant wars

were waged between the two families. In one of such expeditions Billama was routed and put to flight by the Hoysala Vira Ballala II at the famous battle of Sortur. Simhana was the most powerful king of the family who carried his conquests far into the interior of the Shimoga district of the Hoysala kingdom in the South, subdued the Kayastha and Chola chiefs of the East coast and invaded Gujarat whose king Lavanyaprasada made a treaty with him in A. D. 1231. The family maintained its glory during the next two reigns of Krishna and Mahadeva.

XII. Mohammadan invasion under Malik Kafur and the rise of the Hindu power of Vijayanagara.

It was during the reign of Mahadeva that Sri Madhvacharya preached his dualistic philosophy of Vishnu-bhakti which infused a new blood into the decaying veins of the people and spiritualised their out-look on life. The materialistic tendencies were however getting stronger and the rule of Ramachandra saw the disruption of the kingdom under the invincible attacks of the Mohammadan invader Allaudin Khilji through his general Malik Kafur. The Hoysala and Kakatiya were also shattered to pieces by the foreign invasion as a result of which the whole of South India and Dekkan were rolled in in chaos and disorder.

The Hoysala dynasty is famous not only for the valorous exploits of the kings like Vishnuvardhana, Vira Ballala II and Ballala III, but also for the patronage they gave to the rise of the Vaishnava philosopher Ramanuja who propagated the religion of Vishnu-bhakti through the length and breadth of of the Karnatak and Tamil land. The magnificent temples of Belur and Halebidu which are built in the fully evolved Chalukyan style called "The Hoysala style" are the finest productions of the Hoysala period. Besides other writers, the Vaishnava poet Rudrabhatta the author of the Jagannatha Vijaya was the protege of Vira Ballala II.

As stated above, the Yadavas came into direct conflict with the Hoysalas and forced their way into the north Mysore towards Shimoga while the latter under Ballala III had maintained their territory in the East upto the Anantpur District where his inscriptions are discovered. Similarly, the Kakatiyas of Watangal waged constant wars with the neighbouring Hoysala and Yadava monarchs. This weakened the power and solidarity of the Hindu kings of the Dekkan and offered an opportunity to the Mohemmadan invader to sweep off the whole expanse of south India at one expedition. The unchallenged march of the Mohemmadan general Maikk Kafur was stemmed

for a time by the Hindu chief Kampilaraya and his son Kumara Rama of Kummata-durga near Hospet; but their single-handed struggle to spare the Dekkan from the catastrophe of foreign invasion ended in their own disaster due mainly to the treacherous machinations of Malik Kafur as recorded in the Kannada work *Paradara-Sodara Romana-Charite* of Nanjunda. The fall of Kampila's kingdom left no hope in the bosom of a Hindu chief to assert his power in these unsettled political conditions. But in the short interval, the circumstances had shaped themselves favourably for the rise of a new Hindu power due to the rebellion of the Mohammadan officers against their suzerain power at Delhi; and the two sons of Sangama namely Hukka (Harihara I) and Bukka I who had been the state officers under Kampila, proclaimed themselves as kings in the ancestral territory of Kampiladeva. Their kingdom was first comprised within the limits of the Hoysala country and in course of time included the whole strip of land between the three oceans except the small Mohammadan States of the Dekkan which had risen in the early part of the 14th century A. D. The kingdom of Vijayanagara had a lengthened career of over 300 years being subjected to the rule of three families one succeeding the other viz., (1) The Sangama dynasty; Saluva usurpation, (2) The Tuluva family and (3) the Aravidu or Kamata dynasty.

The empire rose to its zenith of glory under Devaraya II of the first dynasty whose conquest in the Tamil and Telugu countries established and extended the influence of the family on a wider area. This continued with rising success until the invincible power of Krishnadevaraya was acknowledged as supreme in the whole of South India and Dekkan. Krishnadevaraya's expeditions in the Tamil land and Orissa have left an indubitable stamp of his power in those countries in the form of temples and munificent gifts to the gods.

The first dynasty was inclined towards Saiva worship and many Saiva poets and philosophers like Kriya-sakti etc., rose under their patronage. The Saluvas and Tuluvas were Vaishnava in their persuasion and the Madhva philosopher-saint. Sri Vyasatirtha was the royal preceptor of Vira Narasimha, Krishnadevaraya and Achyutaraya, as can be gathered from the contemporary Sanskrit Champu Vyasayogi-charita of Somanatha-Kavi and the numerous inscriptions found in Hampi-Vijayanagara. The Sri-Vaishnava teachers Vedantadesika etc., were also sheltered by the royal support during the Tuluva rule. The Haridasa-kuta organisation sponsored by Sri Naraharitirtha a direct pupil of Sri Madhvacharya, and supported by Sripadaraya, Vyasatirtha etc., grew stronger and preached Vishnu-bhakti and spiritual love as the *summum bonum* of life. Like the Vachanas of the

Vira-Saiva saints on the side of Saivism, the sonorous hymns of the Dasas of the Vaishnava cult ushered in an age of renaissance in literature, arts and daily routine. The temples of Vijayavithala, Krishnasvami etc., at Hampi were the results of the new era. Like the Chalukyas of Badami and Kalyani, the Tuluva kings revived the worship of Pauranic deities particularly Vishnu in the form of Vitthala, Krishna, Ranganatha, Seshasayi etc., though the sculptural and architectural art had become conventionalised by the 15th and 16th century A. D. The Dasakuta of the Vaishnava saints, Purandaradasa, Kanakadasa etc. revived the indigenous school of Karnatak music with their original contributions which was adopted by the greatest votaries of musical art in the Tamil and Telugu countries. Tyagaraja a well-known saint of the Andhradesa was greatly inspired by Purandaradasa who is believed to be the avatara of Narada.

The height of the Hindu power under Aliya Ramaraya was soon laid low, due to various causes, by the combined forces of the four Mohammadan principalities of Dekkan and the power of Vijayanagara was shattered on the battle field of Rakkasa-rangadagi in A. D. 1565. Tirumala brother of Ramaraja attempted to restore the family; but finding it impossible retired to Penugonda. The descendants of the main line finally took shelter from the storm of

Mohammadan invasion at Chandragiri from which hill-fort Sri Rangaraja is stated to have handed over to the English the site of modern Madras together with the privilege of coining money on the condition that the English would preserve on their coinage "the representation of that deity who was the favourite object of their worship".

XIII. Fall of Vijayanagara and the rise of the Maratha power to check the Mohammadan aggression part played by the potentates of Karnatak.

As a saviour against the Mohammadan aggression the Marathas under Sivaji rose to power and occupied practically the major part of the North-Karnatak. Their successors the Peshwas the Brahman ministers of the Marathas saved the tottering Hindu culture by their shrewed policy of empire-building with the material support of the chiefs and man-power of Karnatak. The whole of Karnatak threw in its lot with the Peshwas and with a single-minded loyalty helped to establish their authority. But the overpowering influence of the western colonists who landed in India first as traders but subsequently participated in the politics of the country, turned the tide of events and the British rule was ultimately established on the soil of Karnatak as on that of the rest of India.

XIV. Karnatak under the British rule.

The advent of British rule in the 18th century marked a new era in the political history of India. It ushered in the struggle for democracy and introduced many reforms and new enactments which no doubt ensured the security of life and property of the subjects, but their diplomatic policy soon sowed the seeds of dissensions between the classes, and ranks and files of people. However, by their administrative tact and rigour of discipline these foreigners slowly captured the hearts of the masses by their frequent proclamations of non-interference in the private and religious life of the people who during the preceding century, had been torn to pieces by internal strifes and rebellions raised by the marauders and bandits, and so were yearning for some sort of lull and peace. The first few years of foreign rule were thus welcome in India, but soon it was discovered that the real interests of the people were at stake under this alien domination. The policy of "divide and rule" adopted by the British slowly reached the remotest nooks and corners of Indian villages which ultimately resulted in the creation of several political and religious antagonistic bodies which were so designed as to quarrel among themselves for some paltry gains, but for want of settlement among themselves always sought the interference of the third power which by its

tactful operations made itself indispensable to all sections of the people of India. The religious and spiritual integrity, the joint-family system which was the basic strength of Hindu life, the pure and noble ideals of education which aimed at producing bands of selfless god-fearing citizens who spread their mission far and wide by their unostentatious and unpretentious example and lastly the solidarity of body politic which used to move with one speed towards the realization of the highest spiritual ideal of peace and happiness—all these were thrown into untold chaos and confusion. The master-minds of India set up a vehement struggle to check the spiritual imbecility which was slowly eating up the vitals of Indian mind and heart and after concerted efforts extending over more than half a century, obtained on August 15, 1947 a Declaration of National Independance in political life; though the basic spiritual life is still imperceptibly enslaved by the Western materialistic thoughts which are the sources of untold strifes and miseries.

XV. Free India and Karnatak.

Karnatak is no exception to the general conditions. A new light has dawned on the Indian mind to revive the ancient culture of the Rishis whose ideals of life have survived the worst circumstances in the past. It is hoped that Providence will come to

our aid to restore the glory and efficacy of our ancient noble ideals and establish equilibrium and sane thinking among the wavering elements which have set at work as a result of the two century contact of the diplomatic rule of the British. Karnatak is proud of her inexhaustible spiritual and material resources which have stood in good stead in times of general distress in the past. The Indian philosophy and ethics owe a good deal to the stalwart minds of Sri Sankara, Sri Ramanuja and Sri Madhava whose home lay in Karnatak, for the elucidation and preaching of the Upanishadic thought. The philosophy of love and right action dedicated to the service of the all-pervading God in humanity preached by them particularly by Sri Madhava and his disciples, the Haridasas of Karnatak is the most effective remedy against all the ills of this mundane existence and it is this philosophy that is bound to save the whole world from the endless strifes and struggles into which it is thrown at present.

XVI. The Cultural heritage Karnatak.

The history of the various activities detailed in the foregoing paragraphs present the rich contribution Karnatak has made to the glory of ancient India. The spiritual and mental potentialities of the Karnatak youth expressed themselves in full bloom in their

philosophies of love and right action preached to the world and in the magnificent works of art, poetry, sculpture, architecture, paintings and music. The special styles of architecture and music known to the students of Indian art under the names "Chalukyan and Hoysala architecture and Karnatak music" mark the crowning glory of achievements of the people of Karnatak.

In administrative institutions, Karnataka offers a new lesson. The kings are often described as ruling the kingdom according to 'tribhohabhyantara-siddhi' that is, by utilising the revenues for (1) education, (2) for promotion of religious worship in temples and (3) for other amenities of life for the general welfare. The king set apart for his personal use, only a small portion of the revenues which according to the Smritis was limited to one-sixth part. The village was the most potent unit round which the whole administration centred. The administration of the *agrahara* - villages wholly vested with the donee and the royal sanction for any change in the existing system was considered only formal. The king's representative in the village including the *agrahara* was *Urodeya*—the headman. The villages were grouped for administrative purposes into *mahagrama*, *vishaya*, *nadu*, *mahanadu*, *mandala*, *rashtraka*, *maharashtra*, *desa* etc., of these, *nadu* and *mahanadu*

are equivalent to *rashtiraka* and *maharashiraka*. Besides these, the wealth of the nation was conserved by the trade-organisations which controlled the commercial dealings of the village. They were affiliated to the Central Chamber of Commerce which had its headquarters at Aihole in the Bijapur District, having the strength of 500 members (Ayyavoley-aynurvar Svamigal) whose mandate was honoured throughout the Telugu and Tamil countries. The Nakhara or Nagara was the trade emporium and the temples built by them were known as Nagaresvara temples. Besides the king's representative (the Urodeya), the village administrative council was composed of the Mahajanas the members of which were elected from among the general public on the basis of educational qualifications. It is significant to note that the village revenue realised from land tax, trade tax, tolls, fines imposed on offenders etc., was mostly utilised on the improvement of the village life, education of children, supply of good water, security of life and property from the criminals and other necessities which contributed to the raising of the village life. The man-power of Karanatak was strengthened by special attention of the State to the physical-culture institutions such as gymnasiums which imparted lessons to the youths not only in wrestling but in archery, warfare and use of weapons. Each village

maintained a battalion of soldiers which was charged with the protection of cattle, women and children of the locality. Cattle was the principal source of wealth and often the neighbouring country organised cattle-raids which were resisted by bands of heroes in the village. Groups of hero-stones and sati-stones found in large numbers all over Karanatak bear ample testimony to the strength of man-power which was dedicated to the preservation of honour and integrity of the land. The following dictum inciting the bravery of the warrior is usually engraved on the top of the hero-stones :-

Jitena labhyate lakshmih mritenapi surangana

Kshana-vidhvamsini kaye ka chinta marane rane ||

"Victory brings wealth, death the clasp of the heavenly damsels; why fear death on the battle-field when this human body is liable to destruction every moment"

one is reminded of the famous verse in the Gita viz.

Hato va prapsyasi svargam

jitva va bhokshyase mahim

Tasmad= uttishtha Kaunteya

yudhaya krita-nischayah ||



Three Hero Stones from Kaikini,
Bhatkal Petha N. K. Dist (P. 34)



Thus, the cultural history of Karnatak clearly illustrates the basic principles of the Aryan life as recorded in the Vedas, with suitable transformations demanded by provincial and racial conditions.

XVII. Salient features of Karnatak History.

In this brief survey of the history of Karnatak, the following points deserve to be noted:— (1) Karnatak was one of the fore-most powers in India from the earliest period of history and maintained its integrity till the advent of the British rule. It was conscious of its individual cultural unity till the fall of the Vijayanagara rule in 1565. But by the introduction of the Maratha sway in Karnatak, the first foreign influence was thrust on the people of Karnatak, but it being a supporter of Hindu culture as a whole its incongruity was not felt though the nerve of Karnatak was not recognised, at its worth, (2) the Kannada language was spoken in the extensive region from the Kaveri to Godavari and this vast territory was held under their sway, practically by the indigenous rulers of Karnatak i. e. the Chalukyas of Badami, the Rashtrakutas of Malkhed, the later Chalukyas of Kalyani, the Hoysala and Yadava rulers and lastly by the kings of the Vijayanagara dynasties, i. e. roughly during the last nine hundred years. Consequently, the area presents a uniformity of culture—the unity

of thought and aspirations in the social, religious and economical life of the people. All the above-mentioned royal families have been historically proved to be the original inhabitants of Karnatak speaking Kannada in their homes. But after the fall of the Vijayanagara empire, this homogeneity of administration was shattered though the imposition of the Maratha rule on Karnatak in the 17th century A. D. was un-antagonistic in spirit and culturally wholesome. (3) The influence of Karnatak in the historical period spread to the Lata-madala in Gujarat and the Vengi-Vishava in Andhra continuously for over 500 years. It may be noted that some of the Kannada families that settled in North India apparently during the political campaigns of the Rashtrakuta kings Govinda III as well as of the Chalukya Vikramaditya VI founded separate ruling dynasties in their new homes, to wit, the family of Nanyadeva of Nepal rulers and the Senas of Bengal. (4) The Karnatak supplied the spiritual power to the rest of India and the world with the philosophies of love and action. She was the camping ground of all religions and philosophies such as Jainism, Buddhism, and other heretic schools as well as all forms of Saivism and Vaishnavism. Karnatak has thus left a rich cultural heritage to posterity. (5) The different systems of administrative machinery e. g. of the *agrarahara*, Government (*Khalsa*) and trade settlements

were modelled after the Aryan and Dravidian standards. Here may be found the germs of the ancient political institutions of the Dravidians which, in the remotest times, had been moulded under the Aryan Vedic standards.

II. Pre-historic and Proto-historic Archaeology

(1) Exploration of sites

(i) GENERAL

In the foregoing pages, a brief sketch of the political history of Karnatak has been made as an introduction to the study of the archaeological remains of the region, belonging to the historic and pre-historic periods. Since Karnatak is a land of great antiquity, its culture can be traced almost to the beginning of human race. Its activities are intertwined with the career of the Dekkan and South India covering a part of the Bombay State and the whole of the Madras Presidency. The cultural remains indicative of the life and industries of the people in the hoary past are found in large quantities to facilitate the reconstruction of an authenticated account of their doings. I shall relate here briefly what efforts have so far been made by government and individual scholars and state the results obtained in this branch of study so far as Karnatak is concerned.

Before reviewing the contribution made by the several bodies —government and private—in the various branches of archaeology, particularly exploration

and excavation of pre-historic and prot-historic sites, it is worth while noting the connotation of the term pre-historic so far as the present discussion goes. According to Vedic tradition, however, as recorded in the Puranas and Itihasas, there is no period of pre-history; for, the division of the vast ocean of time into Kalpas, Manvantaras and Yugas and recording the minutest details of the activities of man in the respective periods in the Vedic and Puranic literatures preclude the possibility of postulating a period of unrecorded history or pre-history for man. The literatures recording such events may not have been contemporaneous, but the events recorded in them were ancient. The term 'pre-historic' came to be used by the antiquarians for the period prior to the Mauryan Age of lithic records.

The highest antiquity to which the archaeological researches could be referred, prior to 1922, did not go beyond the nirvana of Buddha (6th centy. B. C.) and the discovery and decipherment of the Asokan edicts belonging to the 3rd centy. B. C. were considered to be the greatest achievements of an antiquarian. It is true that Bruce Foote had, in his momentous volumes on Indian Pre-histories, surveyed and spotted Palaeolithic, Neolithic and Early Iron-Age sites in the whole of India and made surface collections to illustrate the different cultural strata in the North as well as South India.

He had also, by a study of flints, stone implements, pottery pieces and other relics unearthed at the sites attempted to fix up the sequence and chronology of different cultures. But his conclusions had to remain vague on account of lack of a deciding piece of evidence to correlate them with the mass of pre-historic antiquities discovered in Mesopotamia, Greece, Italy, Crete etc., whose age had been fixed. The startling discoveries of buried cities of different cultural strata belonging to the pre-historic period, at Mohenjo-Daro in the year 1922, at one stroke carried back the antiquity of Indian archaeology not by centuries, but by several millennia before the birth of Christ and opened a new field for antiquarian researches. Co-ordination of the finds at these places with the results of Bruce Foote's researches in terms of Palaeolithic, Neolithic and Iron-Age cultures was attempted and the character and age of the several strata were fixed up.

The time-sequence of cultures represented by the several periods of history may be roughly indicated as follows:—The prehistoric period may be divided into the Stone Age and the Age of Metals. In the Stone Age, again, four successive phases may be distinguished: Eolithic or the Dawn of the Stone Age, Palaeolithic or the Old Stone Age, Mesolithic or the Transitional Age, and Neolithic or the

Polished or the New Stone Age. Each age shows some marked progress in the preparation of stone implements. In Palaeolithic times, tools were shaped by chipping hard flints, while in the Neolithic times they were made by grinding and polishing. A long period of time intervened between the Old and the New Stone Ages of India as was demonstrated by Bruce Foote in a section of the right bank of the Sabaramati river in Gujarat where a deposit between the Neolithic and Palaeolithic finds measured more than 200 ft. in depth. In Europe, the Mesolithic Age intervened between the two while in India nothing is known of the Mesolithic industries to bridge the gulf between the two ages. The Stone Age passed into Age of Metals which shows two successive phases, viz., the Copper Age and the Iron Age. While in most parts of Europe, the Stone age gave place to the Bronze Age, in Northern India the Copper Age succeeded the former. The culture represented by Mohenjo-Daro and Harappa is assigned to the Chalco-lithic Age, i. e., the age of copper and stone which lay mid-way between the Stone Age and the Iron Age. In Southern India, however, the Iron Age was a direct descendant of the Stone Age. In one or two solitary cases, at Maski and Chandravalli, however, isolated copper implements are reported to have been found in association with microlithic finds

of the Stone age. If copper is found in large quantities in a sufficiently large number of Stone Age sites, we may perhaps be forced to accept the intervention of Copper between Stone and Iron Ages in Southern India also.

Though it is not conclusively established, we may assign approximate periods to the prevalence of above-mentioned phases of culture in prehistoric India. It is enough to indicate that Iron Age culture flourished between 1000 B. C. and 500 B. C. which is usually accepted by the scholars.

With this preliminary knowledge about the character and age of Indian pre-historic finds, it may be noted that not many sites of the pre-historic periods have been explored in South India, though the country is known to abound in such from the folk-lore, tradition and local chronicles and above all from the topography of the mounds and debris of different cultural layers, scattered over the land.

During the past few years, some important sites of the Palaeolithic or Early Iron Ages have been explored in South India. Col. Meadows Tyalor, Rev. G. Keis and R. Bruce Foote of the Geological Survey of the Government of India as well as the late Captain Leonard Munn, Special Officer, Hyderabad Geological Survey have noticed pre-historic and

proto-historic sites in the Hyderabad State. Megalithic tombs in a great variety of forms occur in the Raichur District of Hyderabad. In the cairn burials at Rajgir two kinds of pottery were found: a red polished ware and a black polished one with a red base. The number of pre-historic settlements such as Maski, Benkal, Mudgal, Gorebal etc., explored so far exceeds twenty-four in the Raichur District alone of the Hyderabad State. Large scale excavations were undertaken at Maski as a result of which black and red funeral pottery, polished stone implements and chert flakes belonging to 1000 B. C., or earlier, were unearthed. In Mysore, Chandravalli is the only site where excavation was started by Dr. M. H. Krishna on a scientific basis in the year 1929-30 but the operations have not yet been complete and the results of the excavations so far conducted have not been furnished to scholars. The preliminary note on the excavations shows the importance of the site and its antiquity going back from the Andhra period to the Neolithic times or at least to the Early Iron Age.

Though South India and Dekkan are teeming with pre-historic sites of Palaeolithic, Neolithic and Early Iron Age cultures, no large scale and exhaustive excavations have been done at any of the places to enable the excavator to formulate his conclusions

on the type, character and significance of the finds for the cultural history of the land. The relics have been, under the circumstances, classified only typologically and not stratifically.

(ii) HINTS FOR EXPLORATION

The antiquity and importance of a site are judged by the criterion of its relation to a pre-historic or historic problem in the following aspects:

- (a) Geological and geographical features,
- (b) Anthropological data,
- (c) Religious and trade intercourses,
- (d) Military operations.
- (e) Political and social contacts etc.

This surmise is then tested by the actual surface finds at the site, correlated with similar finds unearthed at known pre-historic or historic sites. The site which satisfies such rigid tests can be declared to be important and deserving of further exploration and excavation.

Geologically, India may be divided into four main groups:— (1) The Dekkan plateau, (2) The Himalayan Range, (3) The North Indian plains and (4) The South Indian plains. Of these, the Dekkan

plateau is one of the most ancient and stable parts of the Earth. The Karnatak is comprised in the Dekkan plateau which has remained, ever since its formation, stable and un-submerged.

The Karnatak is bounded on the North by the Godavari, on the South by the Kaveri or the Tamil speaking country, on the West by the Sea-coast of North and South Kanara Districts. The kernal of Karnatak is comprised in the four Districts of Dharwar, Belgaum, Bijapur, and Kanara (South and North) and also parts of Sholapur.

In this vast area, the earliest occupants in the pre-historic age were the ape-shaped beings who in the course of ages were succeeded by well-developed human beings. The former lived in natural caverns. The Vanaras of the Ramayana may be favourably compared with these ape-shaped beings, and their habitat, with the caverns at Kishkindha near Hampi. Thus, the opening and excavation of natural caverns and caves at Hampi may disclose their remains and prove helpful in connecting Karnatak with the original habitat of man.

Since then, man has left his remains in this occupied area. All the relics from the Palaeolithic to the Iron Age are expected to be available in this area. This surmise has come true from the

surface exploration conducted in Bombay Karnatak, by the Kannada Research Institute under my supervision.

The Karnatak region is drained by the big river systems, the Bhima, Nira, Krishna, Malaprabha Ghataprabha, Tungabadra, Varada and Kaveri. Karnatak had a flourishing trade and had established trade relations with foreign countries, Persia, Greece, Rome, Egypt etc.. She maintained a Central Chamber of Commerce at Aihole near Badami, which controlled all trade organisations in the whole of South India from the earliest period of history.

The first iron-smelting factory in pre-historic India existed at Kudiritini in the Bellary District. Gold and iron ores are found in plenty in Karnatak and it is possible that Karnatak supplied these articles to the traders of Mohenjo Daro.

On account of these natural resources, the northern emigrants and the foreigners moved to the South and settled in Karnatak. Some of the pre-historic and historic dolmens scattered in all parts of Karnatak particularly, at Aihole, Koppal, Konnur near Gokak on the Ghataprabha etc., and cairns in the forests of Agadi, Sidenur etc., are supposed to be the remains of foreign trade settlements in Karnatak and this bears ample testimony to the existence of close intercourse with foreign nations. Naturally, in course of time,

Karnatak was made the target of attacks by the foreign Moslem and Christian powers as well as by the kings of the North and South India. Particularly the Krishna—Tungabhadra doab was the most coveted land which occasioned long battles among the rival claimants. The Kadamba, Chalukya (early and late), Rashtrakuta, Kalachurya, Yadava, Hoysala, Vijayanagara and their feudatories ruled over the region successively from 4th century A. D. to 16th century A. D. Karnatak was during the historic period a first rate political power in India.

The Northern belt of Karnatak is underlain by the *trap rock*, and the western belt, by the Dharwar series where lime-stone and other porous series have created a region of low and irregularly shaped hills. The central region is traversed by the sandstone hills of the Kaladgi series while the rest of the region is underlain by softer crystalline rocks.

Thus, the availability of suitable material has contributed to the production of works of art and architecture. Karnatak has evolved special styles of temple architecture and sculpture. A good number of temples of superb artistic value have risen in Karnatak during the Chalukaya and Hoysala periods.

Karnatak is separated by natural barriers from the Tamil land and the Konkan. But the boundaries of Maharashtra and Karnatak are ill-defined and similarly

the Telugu country is in the same undivided plain as Karnatak, though the foundational plane of the latter is unlike Karnatak. arid and rugged. Thus culturally, greater affinity is found to exist between Karnatak, Maharashtra and Telugu countries. This is confirmed by the archaeological evidence.

With this geological, geographical and anthropological and historical back-ground, the Karnatak region has to be explored for corroborative archaeological evidence. The sites found to be important under these tests, deserve to be tapped and excavated.

(iii) SITES EXPLORED

The antiquity of Karnatak comprised in the Bombay Presidency is amply proved by the richness, and variety of cultural relics scattered in the tract and assignable to the historic and pre-historic periods of Indian archaeology. Politically, Karnatak held an independent rank among the powers of the Dekkan and South India at least from the time of the Early Kadambas of Banavasi *i. e.*, from the beginning of the 4th century A. D. Prior to this, it was held by the Saravahanas, the Chutus and the Pallavas and the significant reference to Vanavasaka in Asokan edicts and Vanavasa in the Prakrit inscriptions of the Ikshvaku kings at Nagarjunakonda—(*Ep-Indica* Vol. XX. pp 1 ff.) shows the extent of influence the royal

house-holds of Karnatak wielded in the political history of the period. The Kadambas had contracted matrimonial alliances with the Guptas and the Vakatakas (See Talgund inscription of Kakusthavarma) and the Chalukyas of Badami and their successors the Rashtrakutas etc., had extended their arms of conquest upto the Himalayas in the North and Ceylon beyond South India. In the succeeding centuries after the 10th century A. D. the contact of the royal households of Karnatak with the powers of the east coast and South India became more intimate until during the Vijayanagara period, the glorious empire of Krishnadevaraya embraced practically the whole of the extensive territory lying between the three seas. Thus, it may be stated that Karnatak had established a kingdom of her own from the earliest period of Indian history and maintained a close contact with the powers that be in the North as well as in South India. Her cultural remains which have come down to posterity in the form of architectural buildings, sculptures, paintings, inscriptions etc., betray a mixture of various influences of the contemporary schools of art and architecture. It is worth-while to make an exhaustive survey of these remains and study them critically for reconstructing the cultural history of India in general and of Karnatak in particular during the historic period i. e. after the 4th or 3rd century B. C.

I have to observe here that so far, no attempt has been made systematically to survey the archaeological remains of Bombay-Karnatak with a view to collating and comparing the results with those of the sister provinces of Mysore, Hyderabad (Dn.) and Madras (South India). No serious investigations have been conducted in the area to spot out important cities of the historic period from the bits of informations collected by a study of the accounts of foreign travellers and geographers and by an analysis of the inscriptions which are so rich in the variety of details they furnish for this purpose. For example, the Greek geographer Ptolemy mentions in his accounts as places of commercial and historical importance Hippokoura, Inde, Petirgala and Badiamaio which from the context appear to have been situated in the Bijapur District of the Bombay Presidency. Of these places Inde, Petirgala and Badiamaioi are no doubt the modern Indi, Pattadakal and Badami and Hippokoura has been taken to represent Kolhapur where a big hoard of Andhrabhritya coins had been unearthed in 1891, but lately it has been suggested that it might be identical with Hippargi in the Sindagi Taluka of the Bijapur District. In any case, these places deserve to be surveyed in the first instance. More-over, inscriptions furnish interesting details which will give a clue to the importance of a site in the historic

period. For example, it is stated in an early inscription that Pattadakal was a seat of coronation of the Chalukya kings of Badami and was consequently renowned as a city of rubies in the fillet (*Pattada Kisu-volal*). Recently I have spotted out a site on the banks of the Malaprabha at the old site of the village which shows an extensive debris of raised elevation and which for a small trial digging, uncovered pottery pieces, pieces of structural buildings and bricks etc. The pottery pieces are akin to the fragments found at Herakal in a later cultural level. In the course of my investigations, I have come across several historic sites of which mention may be made of Banavasi in North Kanara, where I have noticed traces of a ruined city in the forest. Banavasi is the Vijayanti of inscriptions and literature and Vanavasa or Vanavasaka of the Prakrit inscriptions. Similarly, Lakshmesvar in Miraj Senior, Halsi (the Palasika of the Early Kadamba grants which was a seat of Jaina learning and culture during the early Kadamba period) in the Belgaum District and Kadlevad on the banks of the Bhima in the Sindagi Taluka of the Bijapur District which is known in inscriptions of the 12th century A. D. as an unparalleled *ghatikasthan* occur to my mind as foremost places of historical importance where proper exploration and excavation should be conducted. The ancient capitals of the

royal house-holds of Karnatak viz., Badami, Aihole, Lakkundi, Belgaum, Hangal, Bharkal and Haduvalli should also be carefully surveyed and select spots excavated. It is not my object to give an exhaustive list of such places but only to indicate the names of a few important ones so that the study may be extended to other places also.

I shall now pass on to the other kinds of cultural remains which from the distinctive features exhibited by them are assignable to the Mauryan, Pre-Mauryan or pre-historic periods. Geologically the Dekkan plateau is considered to be the most ancient plot of land on earth and its origin is carried back to several millions of years in pre-history. Even the Himalayan region, the Vindhya and the several river-systems in Hindustan appeared as a result of slow atmospheric and elemental action at a later stage of the creation. Chronologically geologists divide India into four distinct parts viz., (1) The Dekkan plateau, (2) The Himalayas in a line with the central Asian mountain ranges (3) The plains of North India and lastly (4) The Dravidian plains. Of these, the Dekkan table-land is the earliest land inhabited in course of time by insects, worms, quadrupeds and human-looking tailed animals with protruding faces who resembled the Vanaras of the Ramayana; We know from the Puranic traditions which are, if properly

interpreted, perfect pieces of evidence recording the conditions of pre-history of the world, that the Vanaras lived in the Kishkindha region a hill-range with numerous caves and caverns which must have formed the dwellings of these pre-historic semi-human beings. This region appears to be the most ancient part of the Dekkan and closely adjoins the Bombay-Karnatak into which the Vanara settlements must have apparently extended. Cultural layers of several habitations of the life from the Vanara to the early Iron Age man preceding the earliest period of Indian history (3rd century B. C.) of the Mauryan rule can be discerned by a patient investigator in this archaeologically rich Karnatak area. Caves and caverns should be explored, mounds of cultural debris and the alluvial beds of rivers and their tributaries should be searched for and excavated to come by the remains of human and animal habitations and civilized life in the several pre-historic ages.

By a typological study of the finds unearthed by him in the pre-historic sites of Dekkan, Bruce Foote has concluded that Dekkan passed through some stages of lower palaeolithic culture parallel to the Chellean, Acheulean and Mousterien epochs of Europe 50,000 to 30,000 years ago and possibly through a stage corresponding to the Magdalenian (circa 13,000). Then came the microlithic period when pigmy stone

implements along with coarse grey-ware and shell and bone beads were used. At a later age of this culture, the art of polishing implements spread over the Dekkan, which became the general characteristic of the neolithic period. Some time during this period copper and iron appear to have come into use. In the late neolithic period, large quantities of iron appear to have been produced and used all over the Dekkan. This gave rise to the iron age when stone implements were substituted by those of iron. Polished black earthen ware was popular during the first part of this period and later on coloured ware polished and with a variety of ornamentations and lattice designs began to be employed for domestic use. The iron age immediately preceded the historic period of the Mauryan and Satavahana cultures in the Dekkan. Thus, Karnatak is expected to yield a variety of antiquities calculated to throw light on the story of man in the palaeolithic, neolithic and iron age cultures and their detailed study correlated with the antiquities of the other parts of the Dekkan is sure to open a new leaf in the annals of the Indian Researches just as the Mahenjo-Daro finds have done in North India.

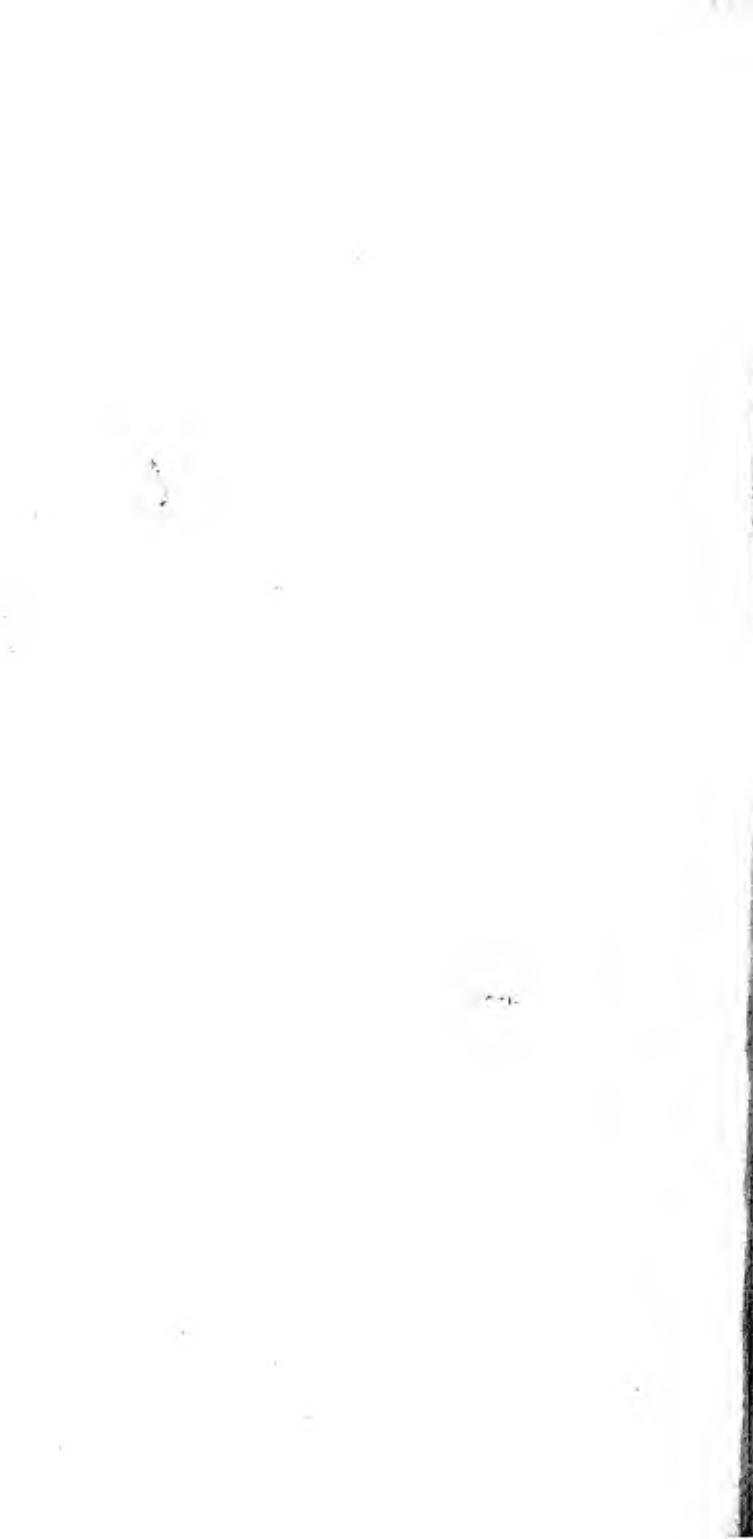
I have to remark here that no systematic or for the matter of that any attempt at systematic exploration and examination of the pre-historic remains of the Bombay—Karnatak has been made except by

Robert Bruce Foote (1864) who in his excellent volumes on Indian Pre-historics has noticed, very cursorily though, a few places in the whole area of the Bombay Presidency. In the Bombay-Karnatak, he has found out palaeoliths in the shingle bed in the old alluvium of the Malaprabha river at Kaira (*i. e.* Khyada on the northern bank of the Malaprabha in the Badami Taluk) and at Madgi near Kaira (Nos. 2998 of Bruce Foote's Catalogue of Indian Pre-historic and Proto-historic Antiquities) in the Bijapur District. He thought that these relics must have been washed down from a higher level presumably from the slopes of Badami hills. He observes that the palaeoliths found on these alluvia had been derived from sources which were not far distant and this is proved by the very small traces of attrition they show. He states that in the Dharwar District he found in the alluvial gravels of the Bennihalla, affluent of the Malaprabha from the south, many fine palaeoliths in a shingle bed three miles above the junction with the Malaprabha. Again from the Belgaum District he unearthed a square hammer stone on the north bank of the Ghataprabha opposite Gokak and a thumb stone and celt south-east of Belgaum town. But a careful exploration is sure to disclose many such sites of palaeolithic, neolithic or early iron age cultures. In view of the important

discoveries of pre-historic sites being made by the Archaeological Departments of Hyderabad and Mysore and the relics unearthed therein being studied for the reconstruction of the cultural history of the Dekkan and South India in the pre-historic period, it is absolutely necessary that a survey and study of the pre-historic remains in the Bombay Karnatak also should be undertaken at the earliest. With this object in view, I gathered information and have been able to spot two important sites viz., Herakal on the Ghataprabha in the Bagalkot Taluka of the Bijapur District and Vadagon-Madhavapur near Belgaum. I conducted a careful exploration of the sites as a result of which many important and interesting finds were unearthed and the relics found therein are described below:—

Herokal is a small village situated on the north bank of the Ghataprabha in the Bagalkot Taluka of the Bijapur District. About a furlong to the east of the village runs a small range of hills called the *Byalikallu gudda* close to the river bank. At the foot of the hills runs what looks like a fort-wall built in blocks of stones and below this there is an elevated plot of land marked out on all the four sides by a row of stones big and undressed. On a lower slope below this there is an extensive table-land marked with pits dug out by the villagers for





old earth for plastering the walls of the houses. The earliest antiquities of the historic period found on the surface may be assigned to the early Chalukyan period. But no traces of the activities of the earlier period i. e. 3rd century B. C. to 5th century A. D. are found in this area. But the whole area below the hill which measures about 10 acres of land is strewn with pottery pieces, fragments of conch shells and shell ornaments, clay and shell beads, *terra-cotta* figures, elephant-head and tiger (?) and iron slag. The pottery pieces are of two kinds: (i) plain and (ii) decorated. The first may be classified into (1) Rough and (2) Smooth, Polished and Painted and the second into (1) Impressed and (2) Moulded and Incised. The first may again be divided into two classes (1) Thinner and (2) Thicker. The thinner variety has in a few cases a black slip inside and a red polished paint outside. Some pieces bear geometrical patterns in white or yellow on a crimson background and a few others show lattice marks in white on a red surface. In this connection it is worth while to compare the pottery pieces figured in the Hyderabad Archaeological Report for 1935-36, plate IV a, fragments of painted pottery (Maski Excavation). A few fabrics of thick pottery show high polish on both the sides.

The Herkal pottery has yielded a good number

of varieties of decorations on the edge of house-hold vessels which may be classified as under :—

1. Those with thumb impressions on cloth, marked before baking.
2. Those with various ornamental designs on the neck.

These may be compared with the pottery fragments figured in Bruce Foote's Plates Nos. 30, 31, 32, 34, 36, 38, 39 as belonging to the *Early Iron Age*. Another class of ware found in this site consists of broad-mouthed low-bottomed vases or drinking cups which were quite common in the Mauryan and Satavahana periods. I came across plentiful specimens of this pottery in the ancient sites of Pattadakal, Iragi on the Tungabhadra in the Shirahatti Taluk, Bellatti about 12 miles from Shirahatti and Brahmapuri on the Panchaganga at Kolhapur.

The same area yielded also in association with the pottery described above, huge quantities of iron slag which is perhaps indicative of the iron industry which is a direct transition from stone age in South India. It is possible to infer that Herakal was one of the big centres of iron smelting in the Dekkan in the period directly following the Stone Age industries of the country.

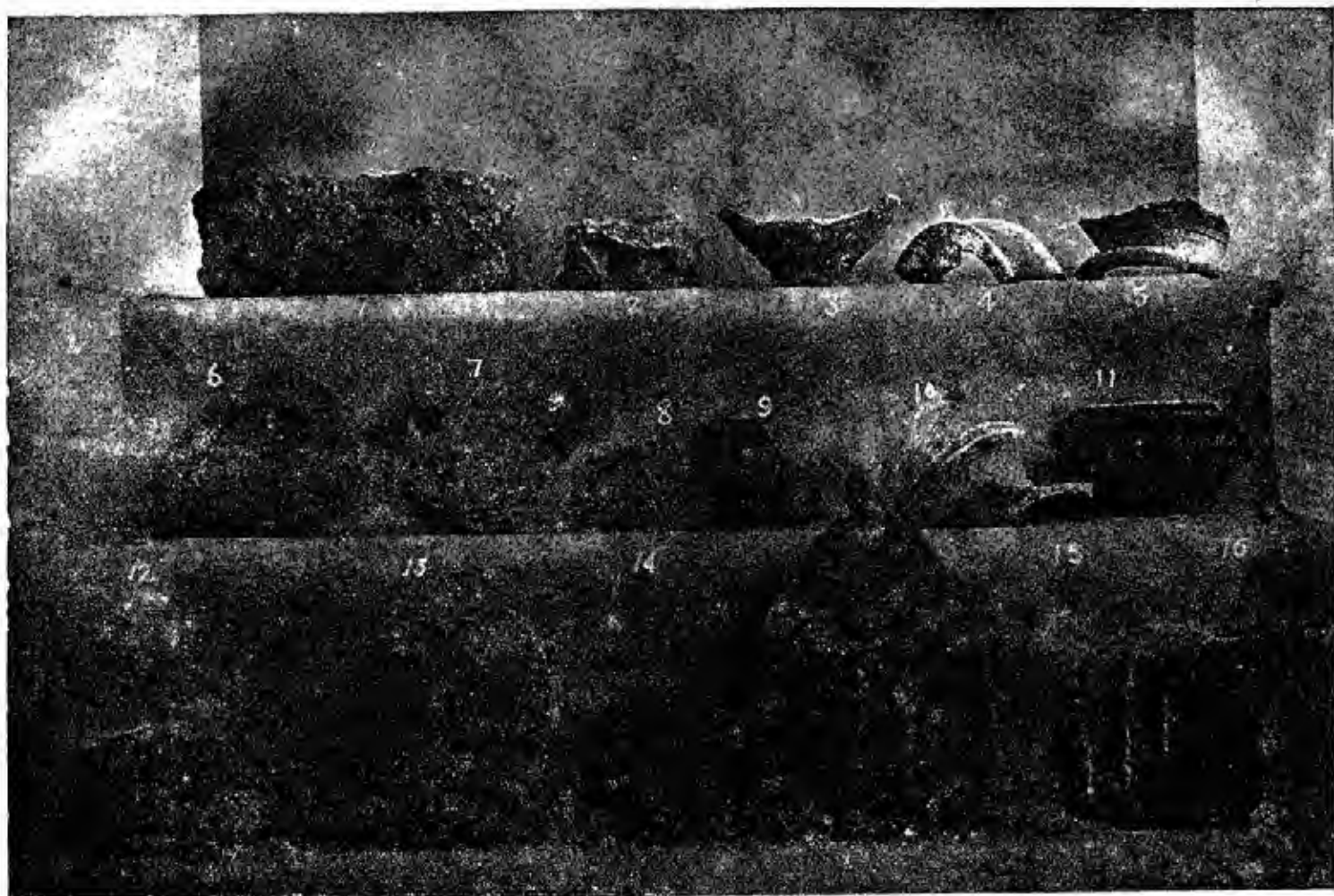
The conch-shells and shell ornaments which include decorated and plain bangles, beads and ear ornaments found in this area are comparable to the similar finds figured in Bruce Foote's Volume (Plate Nos. 41-44) and in the Reports of Hyderabad Archaeological Department (see Annual Report for the year 1935-36, plate VI, f, conch bangles, beads and other ornaments-Maski excavations). Maski was the first pre-historic site which yielded bangles and other ornaments made of shell which are assigned to the late neolithic period. The shell fabrics figured by Bruce Foote are also of the same period and it is very probable that the finds of Herakal should belong to the late neolithic industry. It is of much interest to know that from the same Herakal area was found a good number of two-legged stone-stands with a smooth surface in a slanting position which appear to have been used by the neolithic artisans to dress the conch shells to required sizes in the manufacture of bangles and ornaments.

The *terra-cotta* head of an elephant shows a high polish which was first introduced in the neolithic pottery and largely with the pottery of the *Iron Age*.

All points considered, the Herakal site may be assigned to the *Early Iron Age* if not to the Neolithic or the polished Stone Age of which there appear

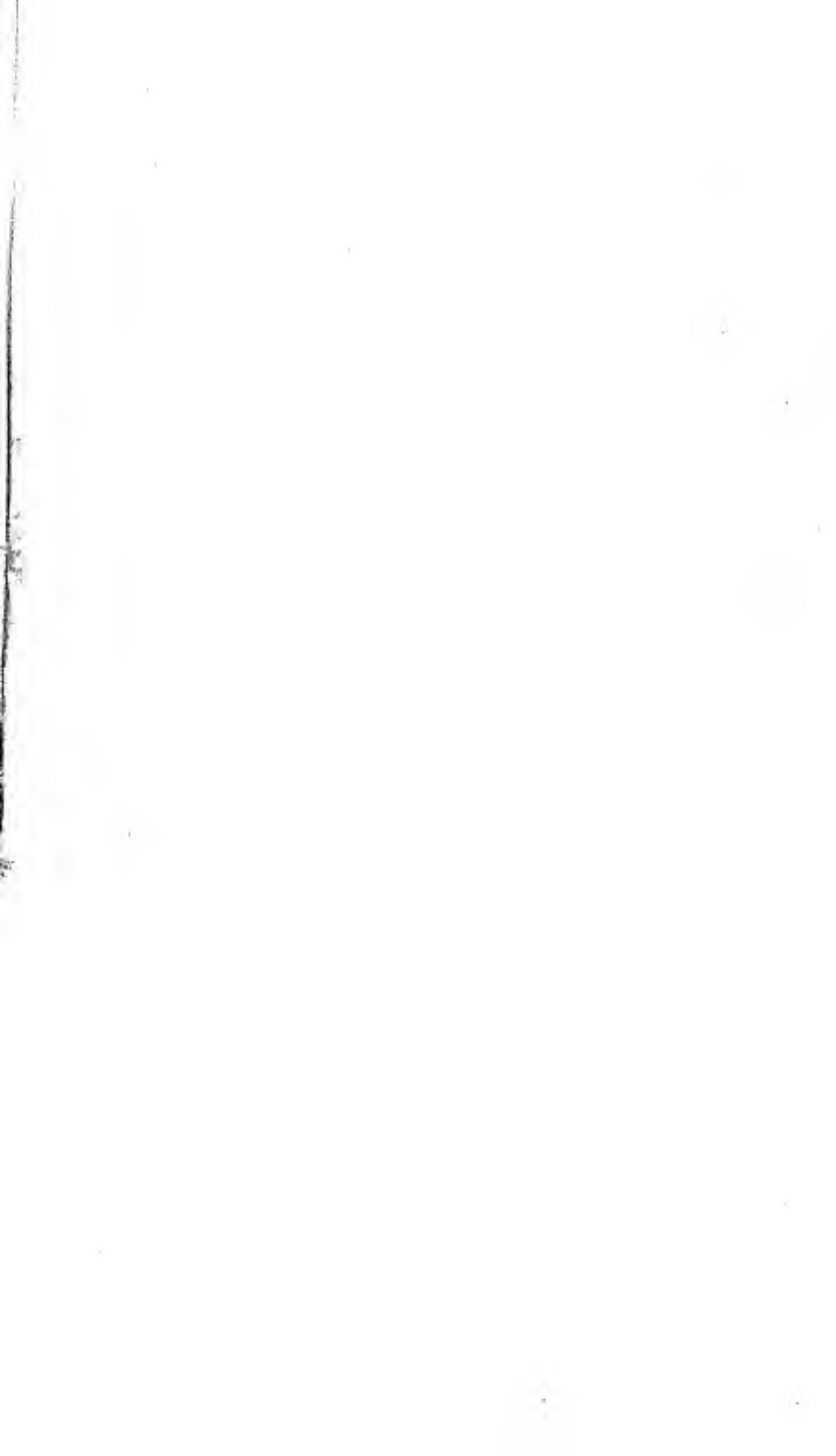
to be some indications. I have picked up some polished stone implements from the area. Bruce Foote has collected as stated above, some neoliths on the northern bank of the Ghataprabha near Gokak and the present site is situated on the northern bank of the same river about seventy miles from the former.

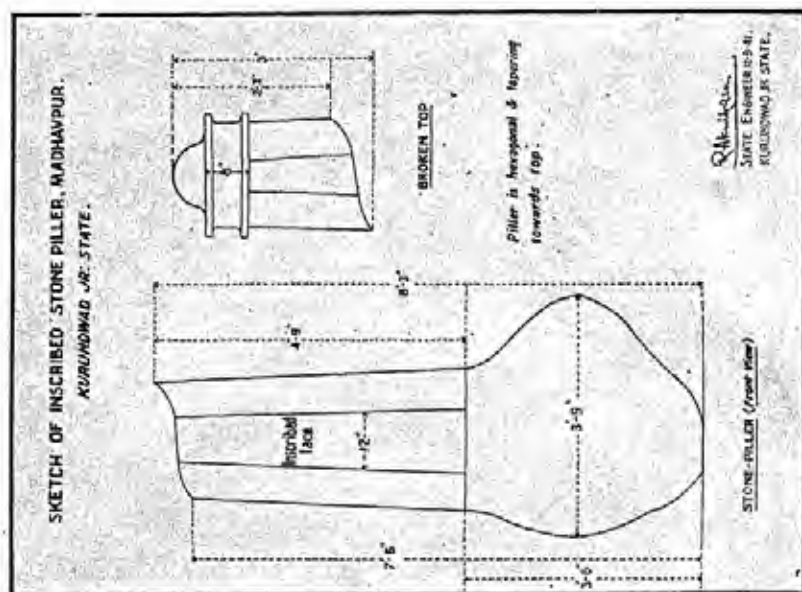
Vadagaon-Madhavapur: This was the headquarters of the chief of Kurandwad (Junior) and is situated about 2 miles to the east of Belgaum in the Bombay Presidency. The importance of the place may be judged from a huge basalt hexagonal pillar inscription discovered by me recently on the site, written in the Prakrit language and Brahmi characters of the 1st. century B. C. The inscription refers to the celebration of several sacrifices and seems to commemorate the performance of a sacrifice by a person of Kasapa-gota. In the vicinity of the pillar there is an extensive site on an elevation which is turned into several fields for cultivation. This site is encircled by a fortified wall now in ruins surrounded by a ditch which is filled with earth. The elevation shows a cultural debris of 8 ft. above the ground level of laterite soil and is marked roughly by 2 or 3 cultural layers of human habitation. The area is studded with well-like cavities or cells built with bricks circular in shape and mounds



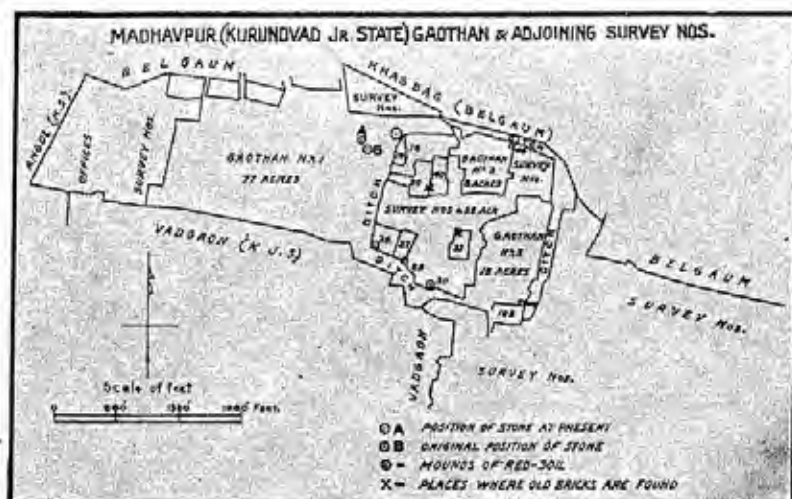
Brick & Pot-sherds with eye-holes from Vadgaon near Belgaum (P. 60)







Sketch of Vadagaon Pillar Inscription
Near Belgum (P. 61)



Site-Plan of Vadagaon Stone Pillar (P. 61)

of red soils. The mounds also show to a trial excavation, some brick structures or walls and rotten pieces of wood and charcoal. The pottery pieces unearthed here are exactly similar in shape and material to the ones recovered at the Herakal site mentioned above. They have among them a fabric which is a thin polished fragment with dots marked in white paint and one which is decorated with a geometrical pattern. The large-sized bricks, eye-holed baked tiles, finger-marked flat pieces of tiles etc., are noteworthy. Similar fabrics are known to exist in the relics unearthed at the Bramapuri site on the Panchaganga river near Kolhapur which I had examined in my visit to the place. (This has since been excavated by the Kolhapur Sate and a report on it just published.) From a hoard of the Andhra coins and other indications, this latter site is assigned to the Satavahana or Andhra period. But the Vadgaon-Madhavapur site must be still older as can be gathered from the existence of the Brahmi Pillar inscription (1st century B. C.) mentioned above and the similarity of the polished and painted pottery with geometrical patterns or dotted designs, with the fragments discovered at Herakal, Satanikota in Aanantpur District, at Chandravalli in Mysore and Maski in Hyderabad (*Supplement to the Mysore Archaeological Report for 1929: Chandravalli Excavation, Hyderabad*

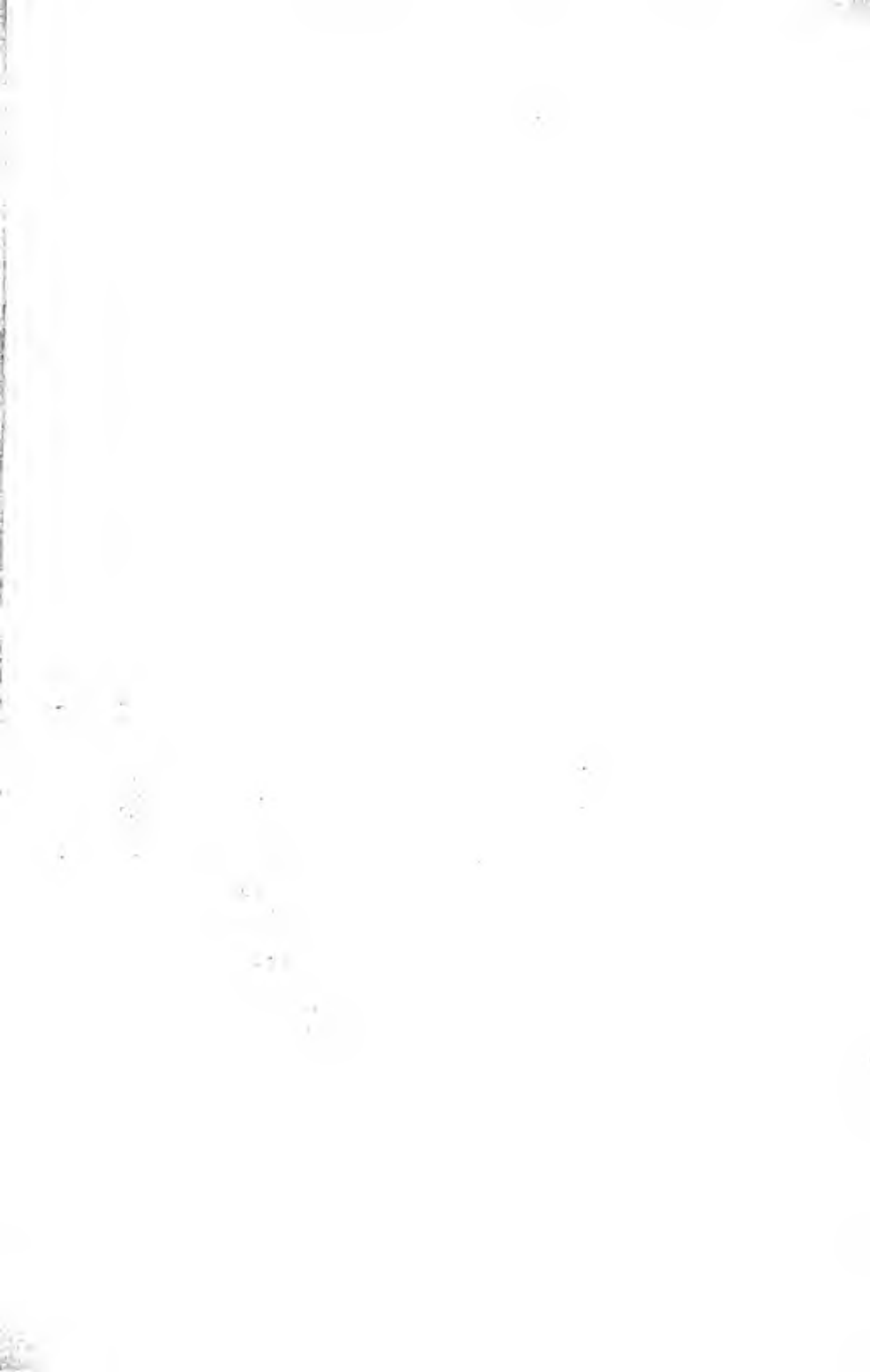
Archaeological Report, 1935-36, pp. 25 ff.) which have laid bare antiquities of the Neolithic, Iron Age and Mauryan and Satavahana cultures.

I was informed by the Rajasaheb of Kurundwad (Junior) that while laying foundation for the new capital at Madhavapur, similar pottery pieces, brick constructions and eye-holed or thick tiles were found in large quantities. This would show that the present and old sites of Vadgaon-Madhavapur extending over hundred and twenty-eight acres are likely to yield much valuable archaeological material for the cultural history of Karnatak and will repay a detailed exploration. Of this vast area the table land measuring about 53 acres comprised in several survey Numbers with traces of ditch on all sides showing mounds of red soil, well-like brick constructions and varieties of pottery-pieces described above deserves to be protected by the Archaeological Department with a view to undertaking the excavation of the area when a favourable opportunity arises.

(iv) FURTHER SITES EXPLORED

Itgi :- On the bank of the Tungabhadra in the Shirahatti Taluk of the Sangli State.

Thick big ranjangi, pots with various designed brims and edges, pieces polished and black, pottery





Ukhapatra found at Itagi on the banks of Tungabhadra,
Shirahatti Taluk, Sangli State (P. 63)

Plate No. VII



Ukhapa(tra, (another view) (P. 63)



fragments with incised geometric pattern or having a geometric design in white paint on red border. A unique sacrificial pot identified as Ukhapàtra was unearthed, on the bank of the river. In the alluvial bank of the river about 2 miles to the east of the village a few fine specimens of palaeoliths were picked out with conglomerate.

Khyad, Menasgi, Hole-Alur, Dhanaksirur Etc.— On the bank of the Malaprabha, and Bennihall (nala):—

In the alluvial bed of the river, and *nala* palaeoliths of different shapes and material were recovered in large numbers.

Saptasagar:— In the Athani Taluk, Belgaum District. A fine specimen of a neolith is found, besides a few microliths which are made of agate (?), other relics such as pottery etc., are similar to the Itgi findings.

Thirteen sites on the banks of the Krishna in the Bilgi-petha, Bijapur District, have shown by thier archaeological remains which are collected from the respective sites, that they are assignable to the period posterior to that of Herakal stie on the Ghataprabha noticed above. These relics consist of painted and designed pottery, beads, earthen coin-mould, conch-shells, shell ornaments, shell and earthen beads, etc.,

Mangalvedhe (Sangli State):— It is the head-quarter of the Mangalvedhe Taluk. About 2 miles from the village, a site with an ancient habitation shown by the remains of ancient red and polished pottery-pieces is worth excavation.

Brahmapuri near Mangalvedhe:— A table land extending over 50-60 acres of land which is strewn over with brick bits, pot-sherds, shell-pieces, fragments of conch shell and iron.

Brahmapuri (Kolhapur):— This site shows an extensive area with mounds replete with *terra cotta* figures, bricks of unusual size, pots and *ranjangi* which go to the Satavahana period. The state Durbar was intimated about the discovery and Director General of Archaeology in India, was addressed in the matter for immediate exploration and excavation. The State Darbar has now taken up the excavation of the site.¹

Old Ghogaon (Sangli State):— On the bank of the Krishna about 2½ miles from Kirloskarwadi. The finds may be compared with those of Madhavapur in some respects.

Moje Digraj (Sangli State):— About 5 miles from Sangli, finds same as above.

¹ The site has since been excavated and a report on it has just appeared.

The two sites old Ghogaon and Moje Digraj show several cultural mounds which deserve to be opened up and excavated at an early date. In view of the contemplated embankment of the Krishna river as part of the Irrigation scheme of the Sangli State which will submerge the present villages of Digraj and Old Ghogaon including the sites mentioned above, the excavation of the sites should be taken up immediately.

Besides these, many megalithic sites in the Terdal Taluk of the Sangli State namely Terdal, Hangandi, Halingali, Madalamatti etc., and Asangi in the Jamkhandi State about six miles to the east of Terdal, were also explored and groups of dolmens and cairns were examined. It may be noted that Konnur near Gokak about 25 miles to the South West of Terdal, contains more than one hundred dolmens on the slopes of the hill called Tapast-maradi (hill of ascetics). It is worth while to conduct a detailed survey of the area round about Konnur and Saptasagar where remains of palaeolithic and neolithic industries have been discovered.

To this list may be added the sites at Hosahilli and Siragambi in the Hirekerur Taluka of the Dharwar District where potsherds bearing much similarity with the northern Black Polished Ware have

been noticed (*Twelve years of Kannada Research* 1939-51 iii). It is noteworthy that if this similarity is established, it would extend the distribution of the N. B. P. ware farther south, which is at present confined to North India and Gujarat. It may not be surprising to think that in the wake of the thick intercourse that existed between the several parts of the Indian continent and abroad as evidenced from the references to foreign tribes and wars contained in the Vedic and Pauranik texts, the mutual borrowing of the types and patterns in the preparation of the domestic utensils etc. should be considered as an established fact. The only change that could possibly be found in the wares of different regions would be in the employment of the local material and the quality of the art technique. The archaeological explorations should be co-ordinated with the literary evidences of the land properly evaluated and dated, to arrive at correct results.

Megalithic Remains of Karnatak

Dolmens and Cairns

Introduction

India is a land of great antiquity. Its hidden treasures which are being unearthed by many an antiquarian during the last hundred years roughly, are of varied nature and type and form the most precious evidence for the reconstruction of her cultural history. The antiquities excavated from the ancient sites are subjected to a critical analysis and study by scholars and their results are published from time to time in the Journals of learned Societies. But in the domain of pre-history, not much concerted action has been done to explore the rich areas particularly in South India and Dekkan and to excavate them on scientific lines. The surface collection of finds made here and there have been studied typologically and not stratigraphically for which, digging the sites and assorting and noting their special types at the different levels are essential. North Karnatak or the Kannada speaking area of the Bombay Presidency has unfortunately been not as yet touched by an excavator or an

archaeologist inspite of the fact that it is probably very early centre of human habitation. The region is supposed to have afforded shelter to primitive man, after the great deluge which fact is attested by the researches of Geologists. Hence one expects to find the remains of primitive man mixed up in different levels of the ground below the present earth level, with relics of later cultures upto modern times, Man has left his belongings, house-hold utensils instruments of his life and protection and lastly the traces of his settled, corporate life in villages or towns as well as the death remains all of which must have been preserved in the earth in the same order and sequence in which the several objects were used by him at different times, unless of course, the deposits are upset and disturbed by some volcanic action or by the fury of nature. To trace the sequence of these remains and assess them for the understanding of man's position and his work through ages is the work of the archaeologist. To discharge this arduous and the most delicate responsibility, the student of history and archaeology should be properly equipped with a thorough knowledge of anthropology, botany, climatology and social sciences as well as the workings of nature as evidenced by geology. Aided with these effective sources, archaeology can present its results in a complete form and depict the story of primitive

life in all its minute details on the basis of the finds made by excavation. For this, it is necessary to undertake a regular exploration of the virgin areas and conduct excavations of the probable sites, under expert guidance.

Indian Megalithic monuments and thier Type

In the vast mass of man's remains dolmens come at a later stage of human life. It is worth while to investigate into the exact period when the art and practice of dolmen building might have come into being in India. As the study of dolmens is intimately associated with the knowledge of tumuli scattered all over the land, some time in the vicinity of the dolmens, it would be worth while to record our observation on these several types of antiquarian remains and draw general conclusions on them from the evidence afforded in the course of our investigation. The remains are of two kinds: (1) those above the surface and (2) those below the ground level. The former may be grouped into several divisions, viz., (1) Barrows and Tumuli, (2) Circles, (3) Cromlechs (4) Dolmens and menhirs. The latter fall into two classes: (1) Cairns and (2) Kistavens. Captain J. S. F. Mackenzie has defined the different types in precise terms in order to avoid their promiscuous use, in his interesting paper on the Rude Stone Archaeology of

the Hassan District, Mysore, (*Ind. Ant.*, Vol. II, 7, ff.)

Barrow:— According to him, is (A. S. beorg, bearch hill mound, sepulchral mound, from beorgan, to shelter—Weber) a mound raised above the level of the ground without any circle of stones to mark the edge.

Tumuli:— Similar mound having a circle of stones either on the top or round the bottom.

Circle:— Circle of stones where the enclosed area is on a level with the surrounding ground the size of the stones which mark the circumference being immaterial.

Cromlech:— Stone structure above or partially above ground and which is surrounded by a circle of stones.

Dolmen:— Similar structure but without the circle of stones.

Cairn:— Heap of small stones whether surrounded by a circle or not.

Kistaven:— Any stone structure found under the present surface of the soil in barrows, tumuli or circles.

Menhir:— Standing monolith whether plain or ornamental.

All these different kinds of relics are eloquent in narrating the story of ancient man in regard to

his race, his style of life, his advancement and equipment in art and industry, his sense of civics and his notions about life here and after death. They are considered to be the graves or tombs of a pre-historic race of people or the memorials erected in honour of distinguished persons in the remotest period of pre-history and as such are the most important unwritten evidence to know the ancient culture of man.

**Their Geographical Distribution in the world,
and particularly in India and Karnatak**

It is interesting to note that the several classes of the finds mentioned are found all over the world and it is worth while to observe that India is no exception to it. They extend over the old world from Scandinavia to Algeria and from Portugal to India and Japan, and in India they are found largely in Karnatak and Southern India including the States of Mysore, Hyderabad, Cochin, Travancore and Pudukkottai etc. They are of frequent occurrence on the hill slopes and on the banks of big rivers where human habitation must have been thick.

**Description of the Different Types Found in the
Dekkan and Karnatak**

While describing the ancient remains at Jivaraji near Farozabad on the Bhima, in the J. B. B. A. S.

Jan. 1851, Captain Meadows Taylor defines the Cromlech as stone Molesquare constructed with three flat stones or slates placed edge-ways in the ground enclosing three sides of a square or parallelogram, as supports or walls with one at the top as a cover usually longer than the others and having one side open usually the north or north-west. There is usually also a flooring of slabs. They correspond with the Cromlech called Kit's Coty House near Aylesford in Kent, with those at plas New yadd in Anglesea and those in Britany. etc., Kistavens or closed cromlechs are described as existing in England and Wales "frequently occurring in those places most favoured by the Druids" They appear of precisely the same construction as those in England and on the Nilgiri Hills. Captain Congrave mentions them as occurring on the Mailgherry hills, 30 miles South of Ooxoor, at Nalkenary on the top of the pass of that name also in Malabar, Ungadapoor and Mungary, in South Coimbatore in Travancore and one at Pulliconda near Velloe. Captain Kitte, quoted by Captain Congrave, finds them in the forests of Orissa. "At the place Goorsaak, I remarked a number of stones placed in the same manner as the Druidical monuments such as Kit's Coty House near Boxley in Kent, viz., three stones set upright with one on the top of them. These houses are.

very small, etc." Captain Congrave further observes, "After removing a large slab five feet long, three broad and one thick which served as the roof of one of closed Cromlechs, I proceeded to excavate another large flag eight feet long by six broad that had fallen inside and reached the floor. Here I found fragments of clay vessels probably remains of funeral urns. The chamber being cleaned, presented four walls, each consisting of an entire stone and was seven feet long and five broad. The monolith the Eastern wall was pierced by a circular aperture about nine inches in diameter adequate to admit the body of a child who I conjecture was employed to place the urn inside." The association of the Druids with Megaliths, although a popular conception is not now held to have existed since the Druids are of a much later period.

"Holed dolmen" and the significance of the hole.

According to the same authority (Meadows Taylor) Cairns and Barrows consist of circles of large stones, some times single, some times double, enclosing a space under which is a grave or graves, as stone chest or chests in which bodies and some-times funeral urns have been deposited. With the Cromlechs, they are common to England, France, Germany, Central Asia and parts of India and though differing in minor details, they are every where the same and the mode

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of sepulchre identical. They are of two classes: (1) those containing urns filled with human ashes, bones and charcoal and (2) the other in which bodies have been interred without urns, filled with ashes and charcoal, but accompanied by rude images, arms, earthen, iron and brass utensils and the like. That latter may be of an era subsequent to the first (J. B. B. R. A. S., Jan. 1851, pp. 183-84). Captain M. J. Walhouse remarks in his Archaeological notes (in *Ind. Ant.*, Vol. III, p. 274 ff) under "Holed Dolmens" that "the holes or apertures so frequently observed in the end slabs of Kistavens or dolmens have excited much perplexity and speculation as to their use and intention. They are almost invariably found in the larger Indian Kistavens and are shown in drawings by Col. Meadows Taylor in the J. B. B. R. A. S. for Jan. 1853 and also occur in European dolmens (See too Fergusson's *Rude Stone Monuments*, pp. 469-73) some times round and only large enough to admit an arm; some times oblong and big enough for a child to pass through.* The subject was discussed by archaeologists regarding the purpose of the hole in the slab and it was speculated that (1) the tombs were habitations of the pigmy

* Mr. L. E. Greening, Superintending Engineer, S. C. Belgaum informs me that as far as he is aware no such examples occur in English examples.

race to which the holes served as doors, (2) the apertures were used as means for introducing fresh sepulchral urns when occasion required and lastly, which perhaps furnished a more plausible solution of the puzzle, (3) the mysterious apertures were used for blowing incense through long tubes into the tomb by persons of close relationship. The last surmise is rendered plausible and is proved to be correct by the paintings found in the chambers or underground sepulchral cells discovered in Egypt representing the tombs and apertures into which persons were blowing incense through long tubes. The ancient Egyptians were of the Tomb-building Turanian race and the evidence for the enormous antiquity of communication between Egypt and Southern India continuously grows stronger to establish the Asiatic origin of the tomb-building habits of the ancient Egyptian. It would thus appear that South India, i.e., Dekkan and Southern India were the home of the dolmen building race from where they spread all over the world. From a comparative study of the two typical skulls excavated at a burial site at Adichanallur in the Tinnevely District, along with a number of earthenware urns containing human bones including some fairly well preserved skulls, it was held that "the characteristics of Adichanallur No. 2 are as definitely Dravidian

as those of Adichnallur No. 1 Australoid, corresponding in all essentials to Dravidian cranial features." In his paper on "The Geographical Distribution of the Chief Modifications of Mankind," published in 1870, Huxley presented the view that the Ancient Egyptian formed part of his "Australoid" race. He also posited in a paper published in 1869 that there is a striking resemblance between an Austrelian native and the people of the Dekkan who speak the languages known as the Dravidian (The Madras Museum Bulletin — The Adichanallur Skulls, by S. Zuckerman). This would show that the Dekkan and Southern India or more correctly the ancient Kannada, Telugu and Tamil speaking people were racially allied to the Australians and Egyptians and that either of them must have borrowed the tomb-building practices from the other.

(ii) Cromlechs on the Nilgiri Hills: their peculiar features

But the dolmens or closed cromlechs on the Nilgiri Hills are of a different type. Wallhouse after a thorough investigation of the remains on the Nilgiris supplements the information supplied by J. Breeks, the late Commissioner of the Nilgiris and the account given by Colonel Congrave, of these pre-historic relics, in the Madras Journal of Literature and Science, No. XXXII, Jan. to June 1847. He

mentions a succession of open-sided five-celled connected Kistavens or Chambered barrows in the Nidimand Dolmen which on digging up the floor of the cells did not yield any sepulchral remains. But in a stone circle between Coonoor Kartari on the Nilgiri, which was only 6 feet in diameter, a number of weapons and implements were discovered embedded in a thick layer of charcoal. In another Cairn near Kotagiri, it is interesting to find that a miniature buffalo's head of hard baked clay, a human head of the size of a lime, of the same, the hair being represented by little dotted rings and a small sickle-shaped iron knife (*Ind. Ant.*, Vol II, p. 275) were unearthed. There is a reference to four-celled open-sided sculptured Kistaven and Major W. Ross King notices in his paper on "the Aboriginal Tribes of the Nilgiri Hills" (published in the *Journal of Anthropology*, p. 43) perfect two-celled Kistaven in very dense jungle at the head of the Kotagiri pass. Several single-celled ones are known and to complete the series, three-celled dolmens may be presumed to exist. Brecks thinks that "Cells more numerous than five can hardly be looked for."

"Pandu Kolis" of Malabar: Their peculiar construction described and explained.

It may be noted that the Pandu Kolis of Malabar are chambers purposely excavated in the rock

below the surface, generally in the laterite which abounds in that district while the Cromlechs of Coorg and Mysore are not excavations but actual structures consisting of a large flag stone of granite at the bottom, with four similar slabs (all hewn and made to fit) forming a stone cist, the superincumbent stone being a large unhewn block of granite. This block is generally found in the centre of the circle of stones with the top just visible above the surface or about a foot below it. The stones forming the circle are buried from 1 to 2 ft. J. Babington describes in an interesting paper contributed to the Transactions of the Literary Society, Bombay, Vol. III, the Pandoo Koolis in Malabar which are generally to be found on the top of eminences or on the sloping sides of such hills in Malabar as are not wooded. They seem to vary in shape according to the nature of the soil or rock on which they are constructed. If the soil is of considerable depth, a large earthen pot or urn of baked clay is generally found containing the bones, beads, arms, etc., of the dead person. But where the soil is of trifling extent, or where the bare rock only is found, the caves are usually dug out of it having the shape of an umbrella after which they are called Kodey Kalls, Topie Kulls or Pandoo Koolis. There are many places in Malabar where the Kody Kalls are found

and their number is great on a hill named *Chata Permba*. These excavations or caves have a circular opening at the top which is covered by a huge covering stone and have a square door on the side walls in the middle of the cave, closed by stone and led to it by a flight of steps from another opening on the surface of the ground, so that a communication could be held with the interior of the cave without removing the top stone. In a paper (published in *Myth. Soci*, Jan., XXIII, pp. 299 ff.) read before the Anthropology Section of the Indian Science Congress, Bangalore, Dr. A. Aiyappan has described similar rock cut cave tombs in South Malabar from a hillock of laterite to the West of the Feroke Railway Station, known locally as Chanapparambu. The peculiarity of these excavations consists in their having two entrances one on the top and the other on the side leading into the interior by three or more steps and containing a variety of small and big urns, iron implements and carnelian beads. The pottery shows a number of marks whose significance has not been made out. The bottom surface of one cave shows strongly, a slightly raised platform the like of which were found by Rea in some of the tombs at Perungulam. He states that "Behind the open space in front of the caves which are a few feet below the ground level, there exist recessed entrances with

enclosing stone slabs. There are 4 or 5 chambers one within another in this frame and the slab perfectly fits the outermost. The cells within the caves have caplike domes, oval at the bottom with a radius on the longer side of 4" and on the shorter of 3". In the centre, a cut stone pillar of sufficient strength either circular or square to withstand the weight of the laterite roof above is cut. A platform in the shape of a raised ridge on the floor measuring 2 ft. \times 1½ ft. exists in some while they are absent in others" (A. R. of the Arch. Dept. Southern circle, Madras, 1910-11, pp. 10-11) Prof. Jouvean Dubreuil is of opinion that the rock cut tombs of Malabar belong to the Vedic Age. He believes that in a hollow cave of hemispherical shape with opening like a chimney at the centre, discovered at Bangala Motta 12 miles North of Cannanore in Malabar, we have the survival of a Vedic fire-altar in a cave-form, a veritable 'house of the sacred fire' (*Agni-driya*). But from the contents of the caves, their shape as well as the surface indications, the caves of Malabar are to be classed with the urn burials or cairns of other places. The marks on the pottery in these caves and in the urn burials near Pondichery (*Ind. Ant.*, July 1931) on the pottery deposited in the Madras Museum unearthed from different sites in South India and at Raigir in the Hyderabad

State suggest and point to the inference that Malabar caves of the description given above are primitive tombs of a race of people who observed the custom of the burial of the dead.

Cromlechs in the Telugu Districts.

The closed dolmens or cromlechs are found in large numbers in the forests and hill slopes of the Dekkan and the Telugu Districts of Krishna, Godavari, Karnul and Anantpur and they generally conform to the usual features of their contents, surface indications and the formation of the cist.

"Dolmens" in Mysore and Coorg.

In Mysore and Coorg, there are two kinds of dolmens the one variety being below the ground level and the other having its base at or about the present level of the surrounding land, thus giving the initial idea that the former were graves and the latter, houses, although all are commonly held to be graves. In most cases, the graves are surrounded by a circle—and a very symmetrical one—of boulders, half imbedded in the ground, while the dwellings have in the place of the imbedded boulders, traces of a sort of compound wall of vertical slabs. The grave variety is not usually found side by side with the dwelling-variety. The first discovery of these ancient sepulchres

in Coorg in large numbers was made in 1866 by Lieutenant Mackenzie, Assistant Superintendent, but soon others were found on the Mysore side of the Kaveri. Captain Cole took up the exploration with great enthusiasm and their excavations led to satisfactory results. All the Cairns found are either level with the ground or their tops crop just a little upon it. Dr. Krishna, Director of the Mysore Archaeology Department, notices a large number of these Cairns or Cromlechs in his Annual Reports where he remarks that the pre-historic Iron Age Cromlechs at Honnavar and Pugalve suggest that their authors were ancient gold miners, as the names of the places indicate the existence of gold mines in the ancient period. Similarly Hungund and Honnali where traces of ancient gold mining have been discovered, also contain a good number of Cromlechs (*Mys. Arch. Report*, 1941, p. 58, and 1942, p. 30). Some of the Cairns or Cromlechs in Mysore and Coorg were opened up. When laid bare they present a stone chamber the cist or Kistaven of Archaeologists. It is about 7 ft. long, 4 ft. wide and 4 ft. high composed of 4 upright granite slabs 7 or 8 inches thick and surmounted by a large slab that projects over the sides; the flooring is likewise of stone. The narrow front slab has an aperture of an irregular curve, nearly 2 ft. in diameter

broken out from the top and generally faces East. Some times a large compartment is by a partition stone divided into two chambers. These Cairns are either solitary or in groups in some instances forming regular rows so as to give the appearance of streets. Others are surrounded by a single or double circle of stones from 2 to 3 ft. high (Mysore and Coorg—A Gazetteer, by Lewes Rice, 1878, p. 297). The dolmens on the Pulney Hills are similarly found in groups, isolated chambers being rare exceptions. The groups contain no fixed number of rooms which range from 2 to 4, the most common number being 6 to 7. They are all without exception formerly surrounded with walls, made up of rough blocks of stone of no fixed size. But these do not admit of depositing the dead body.

Cairns of Hyderabad Dekkan and Bombay-Karnatak

The Hyderabad Cairns present the same characteristic features of a stone circle or enclosure of blocks of stone cist and its surroundings and the contents viz. pots, bones, metal objects and implements as are found in other Cairns of the Dekkan and South India with slight variation in their shape etc. To the West of Hyderabad (Dn.) province, in the Districts of the Bombay-Karnatak, half closed dolmens or Cromlechs are also found in large groups in the

hilly forests particularly in the Bijapur, Dharwar, and Belgaum districts. The Cairns in the Haveri Taluk were partially opened by me in 1932 which showed at a depth of about 5 ft. below the present earth level, a huge covering slab. But, unfortunately the work of further excavation had to be stopped owing to heavy showers of continuous rain. The Cairns in this forest are surrounded by stone circles and the central area is slightly raised like a barrow and looks mound-like, easily distinguishable from the adjoining level. A few Cairns were reported to have been excavated some years back, yielding potteries of various size and description, comparable with the finds of the Hyderabad Cairns at Raigir described by E. H. Hunter in the Journal of the Hyderabad Archaeological Society, July 1916, p. 180 ff. It was a piece of interesting news to me when I was told that the pottery here bore marks of unknown significance like the vessels of Raigir excavation. But it was not preserved. I noticed several Cairns in the old Fort area of Machnur about two miles from Brahmapuri in the Pandharpur Taluk of the Sholapur District. I practically opened one circle which showed at a depth of about two feet, broken earthen vessels, charcoal and pieces of bones which were apparently of human beings. Hyderabad (Dn.) is noted for the large number of Cairns, Cromlechs

and dolmens scattered all over the land and the ancient sites discovered in the Raichur and Gulburga Districts present several peculiar features which are noticed by the Director of Archaeology, Hyderabad (Dn.) in his reports (A. R. 1915-16; 1933-34, p. 7, 1935-36, Appendix A and B, pp. 19-21) and also by Dr. Hunter in the Journal of the Hyderabad Archaeological Society, July, 1916. It is interesting to note that one of the sites at Gachchi Baole, near Golconda in the Attrif-i-Baldha District shows examples of two different kinds of ancient burial system—namely, the Cairn and the Cromlech side by side.

In the Bombay-Karnatak, where much remains to be done in the exploration and excavation of the pre-historic sites, only a few places of interest for this enquiry can be noticed. Agadi in Haveri Taluk of the Dharwar District shows, as mentioned above, a good number of stone circles with Cairns in the centre. The diameter of these circles ranges between 20-24 ft. and the circumference is marked by heaps of stones. And the graves consisting of a cist with a big boulder at the top are found in the centre. Since no systematic and complete excavation of these tombs has been made hither-to, it is not possible to describe the contents of the cists and compare them with the relics found elsewhere, except in a general manner as done above.

**"Dolmens" of Konnur description and interpretation
of the type.**

The most interesting groups of dolmens or properly speaking Cromlechs, as only a part is seen above the ground and the rest is buried underground, are found on the slope of the hill at Konnur in the Gokak Taluk of the Belgaum District. They are quite different in plan and design from the other groups. They are known as Pandavara-mane, or the houses built by the Pandvas and according to another version 'guhe' caves or *Monisa-phadi* or *Munivasa-phadi*, rock-shelters of *Munis* (ascetics). The hill and the adjoining mounds where these antiquities abound are known in local tradition as *Tapasi-maradi* (mounds of the ascetics). All the structures face South and are constructed of rough slabs of different sizes. Their number exceeds one hundred and are found in groups in Survey Nos. 612, 613, 614, 624, 626 and 627—all in the same zone of the hill to the south of the village.

These pre-historic monuments are noticed only briefly by James M Campbell in the Belgaum District Gazetteer (1884), pp. 582-84, where their position and magnetic bearings are shown in sketch No. 1, and in sketch No. 2, the plan and section of Nos. 13 and 46 are illustrated. In 1942, the Archaeological Department with the co-operation of

my Research Institute surveyed all the dolmens at Konnur and prepared a sketch map of their position showing the groups in their bearing. In 1944, I examined these tombs and noticed the following peculiarities in them:—

(1) They are all on the slopes of the hill or on the mounds adjoining the hill which are now practically levelled for the cultivation.

(2) They invariably face South which is the direction of the God of Death.

(3) Only a few big Cromlechs (half closed dolmens) have imposing heights and dimension. The rest look like small miniature flat slabbed niches. Their upper part is seen above the ground, the lower half being buried under-ground.

(4) Every one of them has a small passage in front leading to the cell. This is distinctly observed in the bigger dolmens. The passage is narrow and runs into the entrance of the cell.

(5) The small dolmens have no cap-stones and are partially covered by earth, forming small mounds with half protruding vertical slabs of the cell in the centre. The bigger ones stand prominently in the centre of their mounds showing only the upper part above the ground.

(6) The big dolmens are enclosed by a short wall of heaps of rough stones all round. In Survey No. 612, the interior is filled up with round balls of stone. In Survey No. 613 is standing a stately structure having a specious cell led by a narrow passage and in the extremities of the compound enclosing the dolmens, are built rows of small dolmens all round. This plan reminds one of the famous stone Henge of the West which has similarly a central structure in horse-shoe shape surrounded in two rows by miniature structures of the same shape. This monument is identified by scholars as the Sun temple with the tombs of the devotees all round. It may also be observed that a South Indian shrine is encircled by groups of minor temples in the compound and the bigger dolmen mentioned above might have been the tomb of a holy personage (or of a chief) and the smaller ones at the extremities, those of his disciples (or 'servants) who chose to worship and guard the tomb of their preceptor (or master) after their death as well.

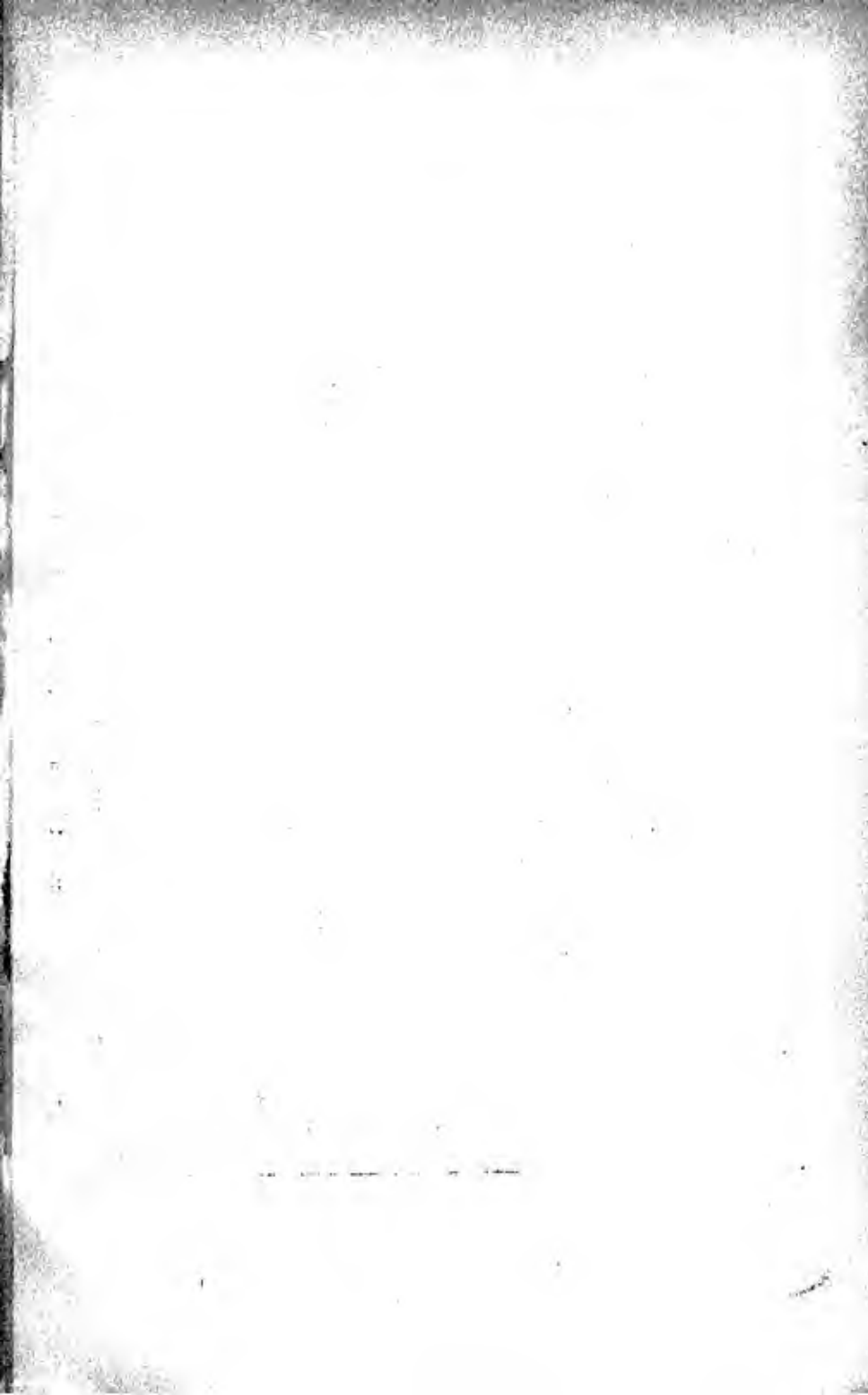
I was narrated a tradition, current in the locality, by the elderly people of the village that hordes of Jain ascetics migrated to the South during the time of Mauryan Chandragupta and on their way to South India left a few settlements in

Karnataka. Accordingly the four-walled cells at Konnur represent the tombs of the Jain ascetics after whom they are called *Monivasa-phadi* (rock-shelters of the ascetics) and the hill is known Tapasi-maradi. That they were tombs and not dwelling places can be asserted from the size, construction and shape of the structures and the narrow stone passages attached to the entrances, which are too narrow to admit a person in. The purpose of these passages is however not certain even in the tombs. Some writers have surmised that they served as passages for the spirits of the dead to come out and enter back. But this feature is not found in any other pre-historic tombs of India or the Western countries. It is true that in some Cairns of the Nilgiri hills, Malabar and the Western countries particularly France and Egypt a provision is made of a small opening in the front wall or the bottom slab of the stone cist and this has been conjectured to be intended for blowing incense by the nearest relatives of the dead on special occasions. It is inconceivable how the incense could be blown into the cist when the whole Cairn is covered by earth underground. In the Konnur tombs, the stone passage in front of the entrance has, it may be noted, a stone paving which indicates that the passages were originally constructed above the ground level and remained visible to the eye as

now. It appears plausible to suppose that originally their purpose was to let in and let out the spirit in the enclosed compound and that in course of time or according to the custom and convenience in different localities, the passage was reduced to an opening in the wall of the cist itself or the *vice versa*. This explanation is however not quite satisfactory since the hole does not appear in all the dolmens or cists. It may be suggested that the upper structures represented holy shrines in primitive shapes built over the cairns—the graves of the dead and that such shrines were constructed only over the tombs of the most prominent holy personages. If this suggestion is accepted, we find the origin of temple-building in these primitive constructions. The front narrow passage may be taken to have developed into the front entrance of a South Indian temple. Against this may be argued that none of these Cairn-shrines shows any image of a deity and if they are intended to remain empty, it is hardly imaginable what purpose they might have served except perhaps for meditation and study. Thus, the problem remains yet unsolved and deserves to be pursued by patient researches.

Groups of dolmens on hills (above ground level),
in Bombay - Karnatak

The Bombay-Karnatak abounds in the second





A Dolmen at Ramatirtha near Badami (P. 91)

type of dolmens, i.e., with their whole body standing on the surface no part being buried underground like cromlechs. The Ramatirtha hill near Badami, hills near Aihole, slope of hill near Bachangud, Motebennur near Byadgi are some of the places where good specimens are found. The hills of Koppal (Hyderabad State) near Gadag are also replete with these monuments. Of these, the one at Motebennur is the biggest and the oldest. The huge unhewn boulders of stone forming the dolmen point to its being the work of palaeolithic culture, while the dolmens formed by slender flat—though unhewn and irregular—slabs at Bachangud, Aihole, etc., are of a later period. The fact that some of these are situated on hard rock would show that they were not intended as burials or memorials or graves as was perhaps the case with the Konnur Cromlechs. They are found in groups of 5 or 6 and in some cases 2 or 3. Their situation on or near the hill explains the ease and facility with which their builders could obtain big unhewn boulders by quarrying the rock. This is quite evident from the group of Ramatirth dolmens which cluster round a big rock-pit indicating the latter to be the place of quarry. Afterwards, the pit served the purpose of a pond for the occupants of these dwellings in pre-historic times to which period the Ramatirtha dolmens from

the material employed and their shape, could be assigned.

It may be noted in passing that there are references to *Tumuli* in the "Illiad" of Homer. In his account of the funeral of Patroclus, he records that the ashes of the burnt body of the warrior were enclosed in an urn surrounded by an artificial sub-structure and loose earth was heaped above it to form a mound. The prophet Ezekiel (B. C. 587) alludes to the same custom of burial. In ancient Indian literature, the Vedas give an elaborate description of the funeral rites and contain invocations to gods for protection from the punishments after death. One of the hymns in the VII mandala addressed to Varuna sings "Let me not yet, kind Varuna, enter into the house of clay" (Rv. VII, 89). This apparently has a reference to the preservation of the ashes of the cremated corpse in the grave or the earthen urn. In the X mandala (X, 18, 10-13), the burial or in the opinion of Oldenberg the ritual of cremation is alluded. The *Shayashadhiya* of the *Vajasaneya Samhita* of the Sukla Yajurveda gives a graphic description of the funeral ceremonies and the burying up of cremated bones in an earthen pot under-ground. It also refers to the raising of an edifice of bricks over this burial—the shape of which varied according to the number of sacrifices the person

performed. In the *Satapatha Bramhana* occurs the passages *ya asuryah prachyah tvad ye tvat parimandalani kurvate*. The word *parimandalani* is explained by Sayana, as *Smasanani*. There seems to be a reference to stone circles in the *Rik* (X, 18, 4) *Imam jivebhyh paridhim dudhani maishanugad aparo artham etam*. It appears that in ancient India corpses were usually burnt and the ashes preserved in urns. The large half-closed dolmens of unhewn rough stones belonging to an earlier epoch do not show full skeletons but only charred bones and small urns which the dead person used when alive. The custom appears to have varied according to locality and race of the people who built these memorials. Whether cremation succeeded or preceded the burial, the antiquity of the dolmen-building can be traced at least to the Vedic age (1500—1000 B. C.) and this corresponds to the early Iron Age of the archaeologists. It may be borne in mind that this dating of the Vedas is not accepted by the Indian scholars who assign them to 4500 B. C. or an earlier epoch.

Several theories have been set forth by scholars regarding the use and purpose of the dolmens. It is held that they were used as shelters in times of war or as memorials or tombs of prominent persons. The latter view cannot be endorsed in entirety since, in

some cases at least, they are found erected on hard beds of rock without any pit in the cell for the deposit of the body or its remains. Though nothing can be said against the first alternative, it may be suggested that they might have served as dwellings of royal personages with houses for their Aid de-Camp round them secured within fort walls on the tops like the palaces of ancient and mediaeval royal house-holds on the forts of Koppal, Badami,¹ etc.

1 It is also not impossible or improbable to think that some of them were used as rest houses or sheds by recluses or religious mendicants who spent their life in meditation in the quiet of the woods and hills. That the ancients loved to repair to the forest in their advanced age (in *Vanaprastha*), is well known to students of Hindu religion and sociology, and the innumerable caves and cave temples found in distant and secluded nooks of the hills bear ample testimony to the practice obtaining in India from the earliest period of history. The earliest rock-cut caves with cells or natural caverns for students, teachers and mendicants to reside in are assignable to the 3rd century B. C. and the sub-division of the life of a Dvija among the Hindus into four *asramas* goes back to at least the Vedic period (Circa 1500 B. C. according to the modest dating of the Vedas by Western scholars). It is not improbable that the same order existed in the earliest Indian Pre-historic times and under this supposition some of the numerous dolmens built on or near the hills might be taken to have been used as shelters by these

It is true that the practice of building dolmens in a particular shape was current throughout the old world. But this only points to the uniformity of cultures, if not its identity, of the pre-historic settlements of the earth. The striking similarity between the shape of the open, detached dolmens and the cists in the Cairns and cromlechs which definitely are the tombs of dead persons, also indicates that the life after death was considered as sacred and real as the life before death, and the tombs for the dead were constructed and shaped with the same elaborateness and design as the dwellings of living persons. We ought, therefore, to find some at least among the dolmens built above the ground level to serve as dwellings. But to suppose that they were the houses of the population at large would warrant the existence of innumerable edifices of the kind all over the world to accommodate the whole population, and betray the incongruity of their situation on the

(*Vanaprastha*) recluses or may be their memorials. Accordingly the dolmens are not as numerous as the population which must have generally been consigned to earth either buried or burnt. The names *Pandavara mane* or *Moriyara mane* or *Moriyara-angadi* given to some groups of dolmens can thus be accounted for as being constructed during the periods of the Pandavas or Mauryas, or the practice might have obtained currency from their times, thus suggesting the high antiquity of the structures.

hill tops instead of on the plains. The dead bodies might have been burnt or buried according to the custom obtaining then and some of the dolmens on the slopes of hills when laid bare show the bones and other relics of the inmates such as earthen pots, implements, etc. This is true at any rate of the dolmens in India. The aperture found on the front slab of the dolmens is repeated in the cromlechs and the cists in Cairns in imitation of thier originals though no specific purpose could be served in the latter case. To suppose that the dolmens were also covered with mounds of earth at one time and are now opened by the process of denudation, is unwarranted by the study of the monuments in question since that would land us into a labyrinth of many a knotty problem.

The question remains whether the ordinary dwellings of the population on the plains were built of stones or mud and were similarly shaped. As regards the first part of the query, it is impossible that stone was available every where in large quantities and so the houses must have been built of mud as usual and destroyed or demolished in the long interval of time. The shape of the house might in all probability be square, rectangular or *swastika* like the dolmens or cists.

Race of Dolmen Builders

As regards the race of people who built the dolmens and Cairns nothing can be stated definitely. The Rev. Isaac Taylor in his *Etruscan Researches* finds an Indian affinity in some remnants of Etruscan speech. Amongst the Etruscan words written over figures in the sepulchral paintings, he has selected the following words (1) *Nathum* having an affinity with the Indian *Natha*=ruler and Jain suffix *natha* of the Tirthankaras (e. g., *Kunthunatha*), (2) *Eka Suthi* written over the doors leading to tombs is interpreted to mean="Here is the tomb." *Eka*=Here cf. Kannada *Ikkade*, Telugu *Ikkada*, etc., and *Suthi*=place of cremation (*Suthi* is connected with the Turanian word meaning to burn or to bury). This similarity coupled with that in the shape and construction of dolmens or burial chambers has led Taylor to posit the borrowal of the custom from India as civilization spread from East to West.

It has been suggested by some scholars that they (the dolmen-builders) might have been pre-historic gold miners as these relics are invariably found in the vicinity of ancient gold mines and by others that they were Sun-worshippers as these megalithic monuments are in evidence in the regions of the Mundas of Chhota Nagpur, the Todas of the Nilgiris and the Muduvans of Travancore who

are all Sun-worshippers. According to Dr. Rivers, megalithic monuments all the world over are the work of a people showing a common culture who were also Sun-worshippers. the Epic and Puranic legends give a graphic description of the physical characteristics of the aboriginal tribe namely the *Nishadas*, as having "a dark skin, short stature and broad nose" which in a great measure, apply to the present day jungle tribes of Southern India; the Kadars of the Cochin State, the Kurumbas and Paniyars of Wynad and the Muduvans and Mannons of Travancore. The *Nishadas* are described in the *Bhagavata* (skandha IV, 14, 43-45) as born of the dead body of Vena, King of the Solar race indicating thereby that they were greatly influenced by the Aryan culture. It may not therefore be wrong to suggest the origin of the practice of dolmen-building in the necessity of having small shelters in the forest by the recluses (*Vanaprastha*) for their residence or in having their residence built in the fort on hill tops by the royal households in the ancient period. This in turn was responsible for the construction of their houses. This practice might have travelled with the people who migrated from India particularly South India, which is the earliest centre of human habitation, to the Western and Eastern world and the intense intercourse between India

and farther countries of the West was also responsible for the appearance of these megalithic monuments in those countries. But this is only a suggestion which requires to be substantiated by further incontrovertible evidence. In the present state of our knowledge, it is hardly possible to posit one thing or the other definitely about the race of dolmen-builders except that they were indigenous to India probably Dekkan, Karnatak and South India.

Antiquity of Dolmen building

One principle that would seem to have swayed the minds of dolmen builders in the ancient times was respect for the dead implying a belief in an after-life. This is emphasised in the several forms of memorials found all over the world and shows that the ancients had a systematised philosophy preaching the transmigration of souls and the existence of a superhuman power. The burials might have been simple in the palaeolithic period while in the neolithic period, the diversity of characters and forms is in evidence in every land. In the earlier period, the dolmens were built of large unhewn blocks of stone and then the blocks used for vertical walls gradually diminished in size until the earlier lateral blocks are replaced by a built up wall of undressed stones. The monuments became so small that the cist was

finally arrived at. DeMorgan observes in his *Pre-Historic Man* "this is not to say that the practice of burying the dead in stone cist is posterior to the dolmens. The two methods of sepulchre were certainly in use at the same time in the same countries but their principle of these funerary construction is the same." The dolmens at Motebennur belongs to the first group and those at Badami, Aihole and Bachangud to the second group as their walls are built of undressed stones and the vertical slabs are small and thinner in size. Since the practice of building similar constructions still continues in some parts of South India, the Nilgiris and Telugu country, great caution should be exercised in distinguishing the really old ones from the modern edifices which a trained eye can at once recognise. It may be noted that the practice was current during the Rashtrakuta period (10th century A. D.) as an inscription at Kaujageri (Ron Taluk) refers to the construction of *Gavikallu* for his dead sons, by one Ballajja the headman of the village (Bombay Karnatak Inscriptions, Vol I Part I). But the antiquity of the idea of dolmen-building may be taken to the Neolithic (in some cases Palaeolithic) and early Iron Ages.

As regards the "marks" on the ancient funerary pottery, I can only remark that some of them exhibit great similarity with the signs occurring on the Mohenjo

Daro vessels and seals and the signs in the *Corpus Inscriptionum Etruscarum* and the *Corpus Inscriptionum Italicarum*. Some of the symbols bear also a resemblance with the script of the Vikrama Khol Inscription and of the old inscriptions found especially in Central Asia, Mesopotamia and Egypt. Dr. Guiseppa Piccol has drawn attention to the similarity of these signs particularly between the Mohenjo Daro script and the writing of the Etruscan and Italian alphabet (*Indian Antiquary*, Vol. LXII, pp. 213 with plate). Mr. Yazdani has also noted in his report (1916-17, pp. 5-6, plate), and in his paper on the pottery marks contributed to the *Journal of Hyderabad Arch. Society*, 1917, that 75% of the Hyderabad "marks" are identical with the alphabetic signs given by Evans in his comparative table showing the relation in Cretan and Agean, Egypto-Libyan and Libyan writings. It has been held by some scholars that the Phoenician characters are only a derived form of the alphabetiform signs of European dolmens about which Sergi observes (*Mediterranean Race*, p. 302): "The characters called Phoenician are only a derived form of the alphabetiform signs that appeared during pre-historic times in Africa, in the Mediterranean and in Western Europe." Similarly, it may be suggested that the Brahmi may also be connected with the pre-historic pottery marks current in the Dekkan. In fact, we can notice some almost identical signs in

the Bhattiprolu Brahmi and the pottery "marks." Beyond noting such points of comparison, it is not possible to give values to the different symbols at the present state of our knowledge about this pottery writing. It may be pointed out that some signs, for example, the *Damaru*, the star, the cross mark, etc., are found in the pre-historic rock-carvings such as on the Gombigudda hill near Jamkhandi (*vide* the *Annual Report on Kannada Research*, Bombay Province, 1939-40, plate III, facing page 21). The provenance of the marked pottery is shown in the accompanying map.

To sum up: (1) The Dolmens and Cairns of Karnatak as in other parts of India and the Western world are mostly found on or near the hills, (2) The latter are definitely the tombs of persons who must have held a position of honour spiritually or materially as they show in the cist, skeletons of dead persons and their paraphernalia, (3) The former are the dwellings or homes of royal personages or persons who took to the life of *Vanaprastha* in their declining age and their remains were buried or burnt in their cells—The dolmens with two to seven cells found in some places were perhaps occupied by the recluses who lived with their wives or servants or pupils in the forest, (4) The similarity in the shape of the dolmens and cists in Cairns is due to the conception

of the ancients about life after death as being as sacred and real as before, (5) The dolmens (properly cromlechs) at Konnur are peculiarly shaped with a narrow stone passage leading to the cell which is constructed of huge, unhewn slabs of different sizes—Smaller ones are small memorials constructed over the tombs of minor persons or pupils—From the local tradition and their situation on the slopes of the hills, they may be supposed to be the tombs of Jain ascetics—Since the tombs were built in imitation of actual dwellings no proper account of the several parts of the construction need be sought for, and lastly (6) The "marks" on the funerary pottery of the Dekkan and South Indian dolmens are likely to afford a clue to the origin of the Brahmi script of the Mauryan inscriptions, provided they are studied closely with the signs of the Mohenjo Daro scripts and the archaic Brahmi writing of South India.

Plate I (a)
De Morgan : "Pre-Historic Man"



Fig. 147. Geographical Distribution of Dolmens in the Old World

Art and Architecture of Ancient Karnatak

Karnatak has played a glorious part in the building of Indian nation in the past. Her contribution to the rich cultural life of India is manifold, without a proper study and estimation of which the knowledge of Indian History would be incomplete. In the creation of political and social institutions, administrative machinery, educational, spiritual, and philosophical activities and in the works of fine arts, Karnatak stands apart as a distinct unit in the vast continent of India leaving a unique stamp of her own on the life and activities of the ancient Bharatavarsha. It is the object of this paper to give a brief outline of the evolution of art and architecture in Karnatak from the earliest times, down to the advent of the British rule in India tracing briefly the course of its development from age to age during the last two thousand years.

The geographical factors in the archaeology of a country are the most essential subjects of study for the proper understanding of its cultural achievements—Geographically Karnatak is situated in the

centre of that part of India which is bounded on the north by the Vindhya mountains and on the three other directions by the sea. In the Linguistic geography, Karnatak has as her northern neighbour, Maharashtra and as the eastern and Southern neighbours, the Telugu and Tamil speaking regions. She is thus the first unit in the Dravida country below the pan of Aryan influence, through which the ideals and institutions of North India passed to the countries in South India. This unique geographical position along with her geological resources has aided the development of fine arts in Karnatak to the highest consummation as will be clear from the sequel.

With this back ground of information, we may proceed to study the works of Karnatak Art. These may be classified under the following four groups:— (i) Architecture, (ii) Sculpture (iii) Painting and (iv) Other arts like Music and poetry. We are concerned here with the first three only, of which the first may be studied under three heads, domicile, military and religious. There are no extant remains of the domicile architecture in any part of India. This is obviously due to the use of perishable material such as wood, brick and mud walls in buildings which collapsed after a life of few years or generations. The ancient fortifications on hills though existing in

some places like Badami, Koppal, Raichur etc., have a strategical or political interest rather than artistic value and so they are not treated in this brief survey.

Only temples the examples of religious architecture have endured through ages, being works of solid material and they are discussed in this paper with a brief analysis of their styles and functions.

It may be noted that as a general rule, wood preceded stone as an architectural medium in the ancient period. Early monuments in stone can often be recognised as copies of wooden originals, the Buddhist railing of the Amaravati stupa affording particularly a clear example. The Pallava monarch Mahendravarman I entitled Vichitra-chitta who was the first builder of cave temples in Tamil land, records in the Mandagappattu inscription (South Arcot district) that he built the cave temples without using bricks, wood, iron, and cement. He was significantly called Vichitra-chitta as he introduced a novel method of construction in his kingdom.

We are not aware of any structural edifices of the Mauryan period (3rd century B. C.) though the pillar and rock edicts of Asoka are found all over India. The Mauryan empire extended upto the Northern border of the Tamil land. The next empire after the Mauryan period was that of the Guptas who ruled from Pataliputra practically over the whole of

North India. Theirs was the age of renaissance in arts and literature and the rich patronage which they extended to the deserving genius produced temples and poetic works which are the fountain head of inspiration to the succeeding generations. The earlist temple in the South is the ruined Ladhkan temple at Aihole near Pattadakal in the Bijapur District which seems to represent their most southerly monument. It is not unlikely that Gupta art had an influence for good over the works of Karnatak Art in this early period. For, the Guptas of North India and the contemporary Kadamba kings of Banavasi were matrimonially related with each other as evidenced by the statement in the Talgund Pillar inscription of Kakusthavarman (5-6th Century A. D.) that he had married his daughters to the Gupta and other kings.

Upto the fall of the Guptas in the sixth century A. D. the Indian art was predominantly characterised by the Gupta style in the whole of India except in the Tamil land of the Pallavas, Pandyas and Cholas who had their permanent capitals respectively at Kanchi, Madura and Tanjore. But during the mediaeval period when the Gupta empire was divided into various kingdoms, local styles began to be developed all being derived from that of the Guptas. Like the Guptas in North, the Chalukyas of Badami who

had an humble beginning as a political power under the Kadambas in the 6th Century A. D., soon rose into a sovereign power over the whole of the Dekkan under the great Pulikesin II. Long before his accession to the throne, his uncle Mangalesa had excavated a cave temple (Vishnu-griha) on the slope of the Badami hill in about A. D. 578 and the two other caves in the same range evidently were the works of the same king. It is not within the scope of this paper to describe the exquisite sculptures and scroll work displayed on the walls and pillars of these caves which are scooped out of a solid rock with the highest engineering skill and dexterity of chisel. Here we notice Karnatak art in its highest exuberence and bouyant vigour in which life is directly transmitted into stone and the artist's conventions play the least part.

In India as every where else in the world, temple afforded the best medium for the artist to display his skill in architecture or sculpture. This is most fittingly illustrated in the temples and sculptures of ancient Karnatak.

Karnatak had maintained a regular guild of sculptors and architects whose works of art furnish the best examples in the form of temples, sculptures and other artistic productions. These may be classified on the basis of chronology and styles illustrated by

them, into four distinct groups:— (1) Pre-Chalukya (upto 5th Century A. D.) showing the Gupta or North Indian influence, (2) Chalukya (6th Century to 10th Century A. D.) showing the mixture of southern and northern styles, (3) Later Chalukya (11th to 13th Century A. D.) exhibiting the same features as above but in their developed and conventionalised forms in which art is reduced to form and formulas of definite descriptions. The later examples under this group bear clear traces of influence of the Chola style of architecture which was practised in the Tamil land or Dravida-desa. The Chalukya style under Chola influence in the 12th and 13 Century A. D. assumed a separate designation which came to be known as the *Hoysala style* which was wedded like the Early Chalukya art to the revival and regeneration of Pauranik worship, the best specimens of which are found in the temples of Somanath, Belur and Halebidu in the Mysore Province. Lastly (4) the Vijayanagara style of architecture which came into being in the 14th Century A. D. The Virupaksha temple with the tall stately tower, the Vijaya Vittthala, Hazara Ramasvami, the Krishnasvami temples etc., at Hampi and similar structures at Penugonda, Tirupati etc., illustrate this style which is hardly distinguishable from the later Hoysala specimens except in the deteriorated standards of application and execution of

art. It may however be noted that the Vijayanagara temples in their full-fledged forms illustrate the highly developed temples of South India with all the different shrines and establishments like the Kalyanamandapa, Rangamandapa, Naryamandapa etc., designed for specific purposes. They served as Museums of art and architecture where Pauranik and historical episodes were narrated in stone and colour. Art was systematised under grips of rules and conventions more rigorously than during the Hoysala period. The advent of the Mohemadans slowly killed indigenous art and several Hindu artists were employed in the Mogul court who produced buildings and Mosques in the Indo-Sarcenic style of architecture. Many of the Hindu temples produced during this period are quite prosaic and life-less built as they are in alien style quite unsuited to the expression of Hindu ideals.

Thus, in the long interval of over fifteen hundred years, Karnatak art was kept alive with the best productions compatible with the period and the natural art genius of the land. A few examples are given below to illustrate the development of styles in the four periods mentioned above, with the description of the special features of the styles employed in the respective monuments.

In the first or the Pre-Chalukyan period the

temples are modelled after the Gupta style; they are small buildings either flat-roofed or with a tower surmounted above a narrow neck by an *amalaka* i. e. a circular crowning piece which is vertically grooved all round. This form of tower in which vertical lines predominate throughout over horizontal ones, is characteristic of the temples in North India whereas in the South and West other forms prevailed. The Durga temple at Aihole with an apsidal plan of the Buddhist Chaityas which may be assigned to the 3rd or 4th century A. D. probably pre-dates the Lakkhan temple mentioned above.

As stated above, the sixth century A. D. saw the introduction of separate styles for separate geographical units. Accordingly in Karnatak, the Chalukya artists evolved a style with an admixture of North or Indo-Aryan and Southern or Dravidian elements. The main characteristic of the Dravidian or Pallava style is the storeyed or horizontal arrangements, of tiers while that of the Northern is the perpendicular arrangement, the reduplication being obtained by vertical additions clustering round the main tower, and of vertical bands up the centre of each face. The Chalukyan buildings, while retaining the storeyed arrangement of Dravidian, reduced the height of each storey, introduced more of them, and covered them with so great a profusion of ornamental detail that

they eventually became so marked that in later examples, they are not, at first glance, apparent (Chalukyan Architecture, by Henry Cousens, p. 18).

The early temples of the Chalukyan period were built with blocks of stone which were piled one upon the other without any cementing material. Such are found in and round about Badami, Aihole and Pattadakal which contain the best examples of the newly evolved Chalukyan style. One of the inscriptions at Pattadakal belonging to the 8th Century A. D. records the name of the chief architect of the Papanatha temple in the following lines:—

“The Sothern wing was constructed by Revadi Ovajja (architect), pupil of Sarva-Siddhi Acharya who was the grandson of Sile Mudda”. Incidentally, it throws light on the existence of a regular guild of architects in Karnatak. The words '*dakshina-diseya madidor*' is taken by some to suggest that Revadi Ovajja built the temples of the southern quarter i. e. South India which is far from likely. Aditya, son of Sri Paladeva is mentioned as the builder of the ceiling (*melgantu*) of the Lokesvara or Virupaksha temple. Names of architects are found engraved on the temple-walls in the early and late temples like the Pattadakal group and the Belur and Halebidu group respectively.

Temples ranging in date from the 6th century to 10th or 11th century A. D. show common characteristics though a discerning eye can detect the minute changes introduced in the use of the material as well as in the size and shape of the buildings. The later temples are built of smaller blocks of stones evenly dressed and smoothened and the sand-stone which was the chief material of the early buildings, gave place to the greenish or bluish block of stone which is softer and more amenable for artistic work. Though unostentatious and small in the earlier period, they grew vast and specious with extensive pillared halls or *mandapas*. It may however be noted that the size of the temples was abnormally great in Dravidian or Southern India of the Cholas and Pandyas (see for example the Brihadisvara temple at Tanjore).

The Chalukyan style is preeminently illustrated in the early temples of Badami, Mahakuta, Pattadakal, Aihole and Kukkanur. This area apparently covers the *Tirul-Kannada-nadu* the kernal of Karnataka where all the fine arts flourished in their classical form. Nripatunga Amoghavarsha I (814-878) enumerates in his *Kavirajamarga*, the following places as the boundaries of this pure Kannada region:—Kopana-nagara (Koppal near Kukkanur), Puligere (Lakshme-



Temple with a northern tower in the compound of the Mahakutesvara temple at Mahakuta near Badami (P. 114)



svara), Kisuvolal (Pattadakal) and Vankunda (Probably Vakkund in the Belgaum District).

During the time of the later Chalukyas of Kalyani (11th and 12th Century A. D.), political and matrimonial alliances between the Chalukyas and Cholas became closer and thicker which resulted in the impact of artistic ideals mutually. The temples at Haveri, Degaon, Bankapur, Ittagi near Koppal, Kuruvatti, Gadag (Trikutesvara temple), Khidrapur, Haralahalli, Hanagal, and Dambal which marks the climax of this style and bears out the consummate skill of the Chalukya architects and sculptors, trace the slow development of the style in the different parts of these edifices.

Examples of the Hoysala architecture are numerous in the Mysore province where the Hoysala sway dominated. After the disruption of the Chalukyas of Kalyani, the Yadavas in the North, the Hoysalas in the South and the Kakatiyas in the East were the ruling powers who encouraged indigenous art by liberal patronage as evidenced by the large number of temples and works of art that arose in the land during the 12th Century A. D. to 14 Century A. D. The Yadavas sponsored the Hemadpanti style called after the great court minister and law-giver Hemadri in which the developed Indo-Aryan element of tapering *sikharas* all round the

gopura predomintes. The Hoysala monarchs having their secondary home in the Tamil land, copied their tall gopuras adding to it the wonderful finish of minute skilled workmanship in the modulated and highly polished glossy stone pillars and walls. While one feels dazzled at the amazing heights of the late Chola temples of South India, the monuments of the Hoysala period rouse up the spontaneous admiration of the visitor for the intricacies of skilled workmanship. North Karnatak shows only the mixture of the Yadava and Hoysala influences which ultimately led to the origin of the Vijayanagara style which like the Chalukya temples was designed to conform to the Pauranik ideals of revived religious worship of Vishnu and Siva. Accordingly they narrate by the sculptures carved on their walls and pillars, the episodes of the great epics the Mahabharata and Ramayana as well as the Bhagavata and Harivamsa. Several new halls or *Mandapas* were added to these structures to accommodate the various services like dancing, enacting a drama, marriage of the deities etc, which occupied a very extensive area in the compound of the temples. Thus, every temple with the servants accommodated in its precincts, became a village in itself with all the amenities of life provided in the locality.

The advent of the Mohaminadan influence in the

Vijayanagara court marred the already decaying art to a considerable degree. The local genius was employed in building the simple but extensive domed mosques which sapped the intellect of the artist. The British rule aggravated the catastrophe by condemning the early art as fit only for *preservation and protection*. It ushered in quite a life-less plain utilitarian style of architecture which marks a deplorable fall and an irrevocable loss of the art genius.

After this discussion on the styles of architecture, only a few words will suffice to describe the sculptures of Karnatak. This is a vast subject requiring the talent of an art critic and the heart of a creative artist, for a proper treatment. But in this brief outline no claim is made on either of the two but an attempt is made to prove that Karnatak had a regular body of sculptors and image-makers who produced their work according to the scientific injunctions without sacrificing the real inspiring beauty of the production.

The earliest available sculpture assignable to a date is the Naga image found in a niche in the Madhukesvara temple at Banavasi. It bears on its four rectangular edges, an inscription in Brahmi characters and Prakrit (Pali) language of the 2nd century A. D. The next image is said to be the figure of Trimurti lying near the Gokak falls

which is assigned to the 3rd Century A. D. Unfortunately, we have no specimens of the Early Kadamba period upto the 6th Cent. A. D. The Chalukyas of Badami have laid the foundation of sculptural art of Karnatak on a sound basis as can be seen by the numerous varieties of figures composite and single, carved in the caves of Badami and the structural temples of Pattadakal and Aihole. The sculptures cover an amazingly wide range of topics from the Divine and Semi-divine to the forester in the jungles which illustrate the different modes of dress, drapery, ornaments, different kinds of musical instruments in vogue, the various implements used in the contemporary domestic life of the people. From the point of view of art, the Chalukyan sculptures can be distinguished from the contemporary Pallava and late Gupta specimens by their flat face, plumpy cheeks and vigorous and lively expression and massive and tall stature (see the cave sculptures at Badami and Aihole). The images are highly proportionate in thier make and size and the visitor feels as if he is actually standing face to face with the person representated by them. In this period, art is living with a direct touch, with its votary

The Rashtrakuta art is lavished on the statues and figures of the marvellous Kailasa temple at Ellora built during the reign of Krishna I. Here conven-

tionalism with exaggerated sizes for figures had begun to appear in the works though it is not employed to mar the beauty of the productions. During the later Chalukyas more finer and softer material submitted to the chisel of the sculptors who worked out wonders in the temples as for example, at Lakkundi and Dambal.

Some of the sculptures of Pattadakal and Aihole bear labels commemorating the names of the artist-sculptors. Of these, Baladeva Arya, Chengamma, Ganasobba and Narasobba are worth noting. Of the last two, the label shows that Ganasobba and Narasobba apparently two brothers were the greatest architects and sculptors of the day. A stone fixed on the outer-wall of the Nandimandapa records that Sarvasiddhi-Acharya was the architect of the Southern quarter (of the temple?). A similar statement is made about Revadi Ovajja the pupil (chatta) of Sarvasiddhi-Acharya that the Southern quarter of the temple was constructed by him. This would mean that Sarvasiddhi-Acharya constructed the Southern portion of the Virupaksha temple perhaps the Nandimandapa in which this inscription is found. As the various parts of the building bear specific names of their artisans; they help the critic to judge the comparative merits of the architects and sculptors in their respective arts. Judged from the works, the productions of

the school of Silemudda or Sarvasiddi Acharya are by far the best among the temples of Pattadakal. Narasobba the architect of the Aihole temple (*Huchimalli Gudi*) has displayed his skill marvellously in the small construction.

The most common among the sculptures of the Pattadakal and Aihole shrines are the different *Avataras* of Vishnu and Siva. Nataraja or Siva in the *Tandava* pose occurs frequently and the next Saiva deity who was apparently most favourite with the sculptors was Durga or Mahishasuramardini. Nataraja is shown with arms varying from 21 to 18 and every pose is so harmoniously poised as to carry the impression of a fierce dance on the body of the demon *Apasamara purusha* or on the trunk of the destroyed elephant *Gajasura*. Among the *avatars* of Vishnu, Narasimha tearing open the stomach of Hiranyakasipu, Varaha lifting up the earth from the bottom of the ocean, Krishna as *Govardhana dhara* holding up the *Govardhana* mountain to protect the cows from the heavy showers of rains, are very common. The whole story of Ramayana from the birth of Rama to the destruction of Ravana and enthronement of Sri Rama with Sita on the throne at Ayodhya, is narrated in bas-reliefs. Similarly the story of Sri Krishna as recorded in the Bhagavata and Harivamsa is given in a series of panels on

the pillars of the Virupaksha and Mallikarjuna temples at Pattadakal. The Papanatha temple depicts on the beams, the story of the marriage of Siva with Parvati which occasion is graced by the presence of Brahma and Vishnu with the sages and the *Dikpalakas*.

The Chalukyan art as stated above, is thus dedicated to the revival of Pauranic worship with the same vigour and passion as with the Guptas, after the heavy burden of the Buddhist representations carved in the Buddhist cave temples of Western India during the Andhra or Satakarni rule. This overburdening of the mythological scenes on the temple walls has led to the free modelling of the figures without caring for the beauty of the individual sculptures. But the composite panels as a whole are excellent and do leave the desired impression of the episodes on the mind of the ordinary visitor and the art critic.

The famous caves at Ellora contain the Saiva representations particularly Siva and Parvati playing at chess, Ravana lifting up Kailasa, Ardhanarisvara, Harihara, the Ganga and Yamuna on their vehicles *kurma* (tortoise) and *makara* (crocodile) respectively which are the works of the 9th Cent. A. D. It is worth noting that the Chalukya and Rashtrakuta artists have invariably shown the figures of Ganga

and Yamuna in their productions. This is evidently the heritage of the Gupta art which shows the statues of the personified Ganga and Yamuna as guarding the entrance of the temples. The Chalukya king Vijayaditya of Badami is stated to have won this Ganga-Yamuna symbol from a contemporary Northern monarch who appears to have risen on the ruins of the Gupta empire. This was apparently adopted by the Rashtrakutas the political successors of the Chalukyas of Badami, in their works of art.

Secular art was not less patronised in Karnatak in the ancient period. Domestic scenes, hunting of pigs and deer, local fights, the cattle raids which were the frequent occurrences of the time, are most aptly and vividly depicted by the early artists.

These themes were continued during the succeeding generations but with the additions of local events and political symbols. Thus, the Hoysala art was characterised by the Tiger-Sala representation (*Hoy-kill* (the tiger)) *Sala-Oh Sala*), the frequency of elephants which was the emblem of the Ganga of Talakad who were their political predecessors and the Yadava art was more or less burdened with the lion representations. The delineation of the individual figures as dancing girls for example was mastered to the climax, but the symbolism is found heavily superimposed on the real life of the figure.

During the Vijayanagara period, on the other hand, art began to decline both intrinsically and symbolically. Beauty was sacrificed to the technique and size which inspired awe rather than admiration. The Moslem contact is noticed in several points. The camels, the foreign-ambassadors dressed in Persian dress, royal procession, the games and amusements are among the common subjects of the artists of the day. As remarked above, the indigenous art suffered a heavy loss at the hands of the Moslems which only met with a precipitous fall with the advent of British rule in India.

There are only a few fresco paintings extant in India the earliest traces of which have survived in the caves of Ramgiri, Ajanta and Bagha. The French archaeological Mission has discovered similar frescoes at Bamiyan in Afghanistan which are assigned to the age of Ajanta paintings. In South India the earliest frescoes are found at Sittannavassal in the Pudukkottai State (7th Century A. D.) and have been made the subject of detailed study by scholars (Dubreuil: *Pallava Paintings in Ind. Ant.* Vol. 52, p. 45-47; the *Pallavas*, 1917).

Contemporaneous with the Ajanta paintings or a little later are the fresco paintings found on the backside of the cave in the third (Vaishnava) cave (cave III) at Badami. The paintings bear a label in

early Chalukya and shell characters. The former reads '*Dutta-manadarunan*' (fieree to the mind of the wicked) which is evidently the title of the artist who painted these exquisite pictures. The paintings at Badami are exactly similar in delineation and depiction of expression, to the frescoes at Ajanta which are assigned to the late Vakataka period (5th Cent. A. D.). The Badami forescoes. are in all probability assignable to the date of the Cave No. III which as stated above was carved by Mangalesa in A. D. 578. Thus, the Badami paintings would be the earliest specimens of the art in South India. They are unfortunately badly damaged and effaced. The technique of the paint and polish was studied by the chemists and artists but no consolidated account is available.

Next to Badami paintings of the 6th Century A. D. we have to take a big leap to come to the works of this art in Karnatak. The Vijayanagara paintings in the ceiling of the Virupaksha temple at Hampi, of about the 16th Century A. D; Penu-gonda paintings of the same period, the Adilsahi paintings found on the walls of the water-pavilion at Kumatgi in the Bijapur District, the paintings on the walls of the Serangapatam palace of Tippu Sultan describing the battles between Tipu and the British and lastly the paintings of mythological scenes painted

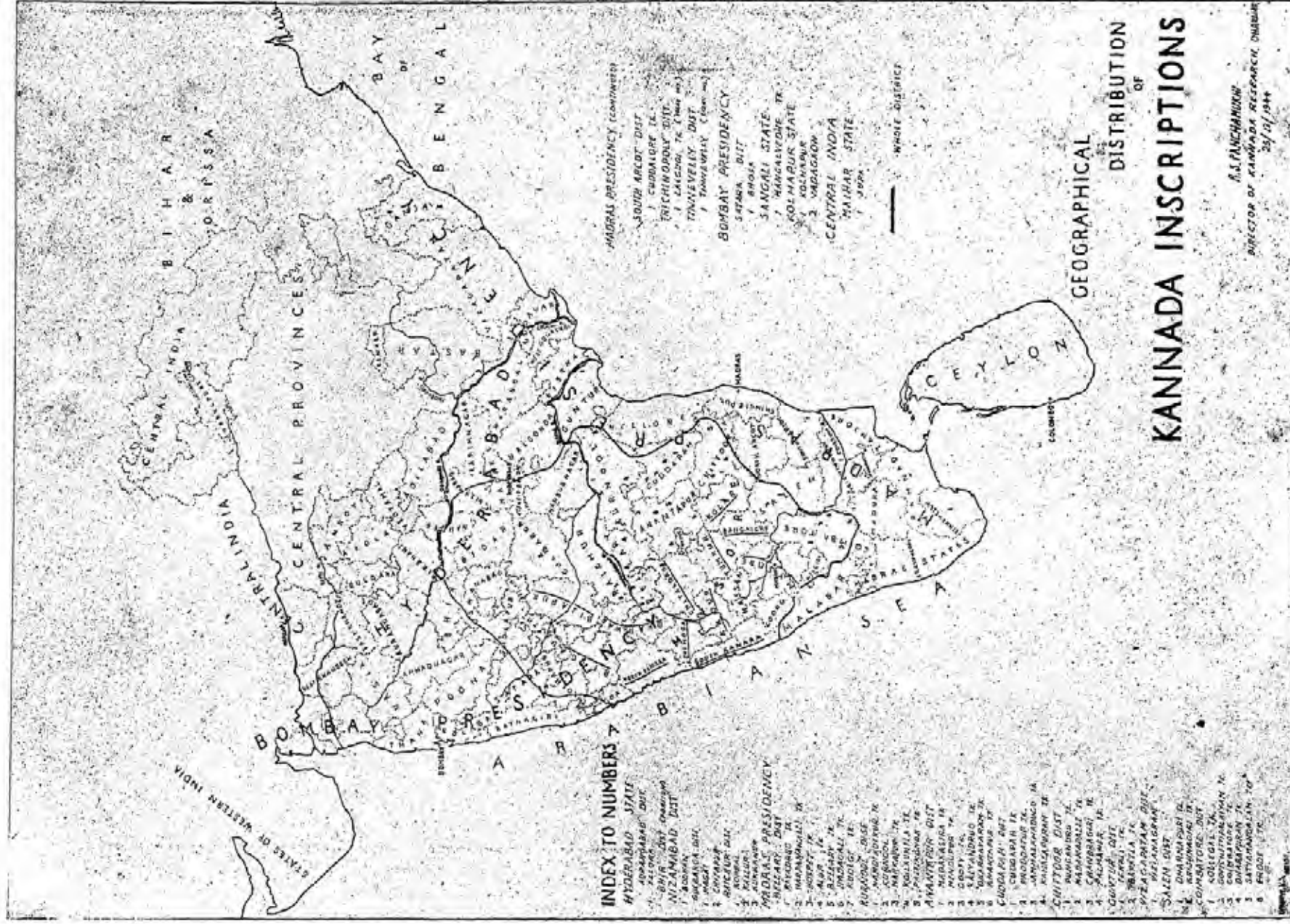
on the walls of the Venkatesa temple at Kulhalli near Jamkhandi assignable to the early 18th century A. D. are some of the instances known to exist so far. Except for the depiction of events of the contemporary political, religious or social interest, they have no artistic value.

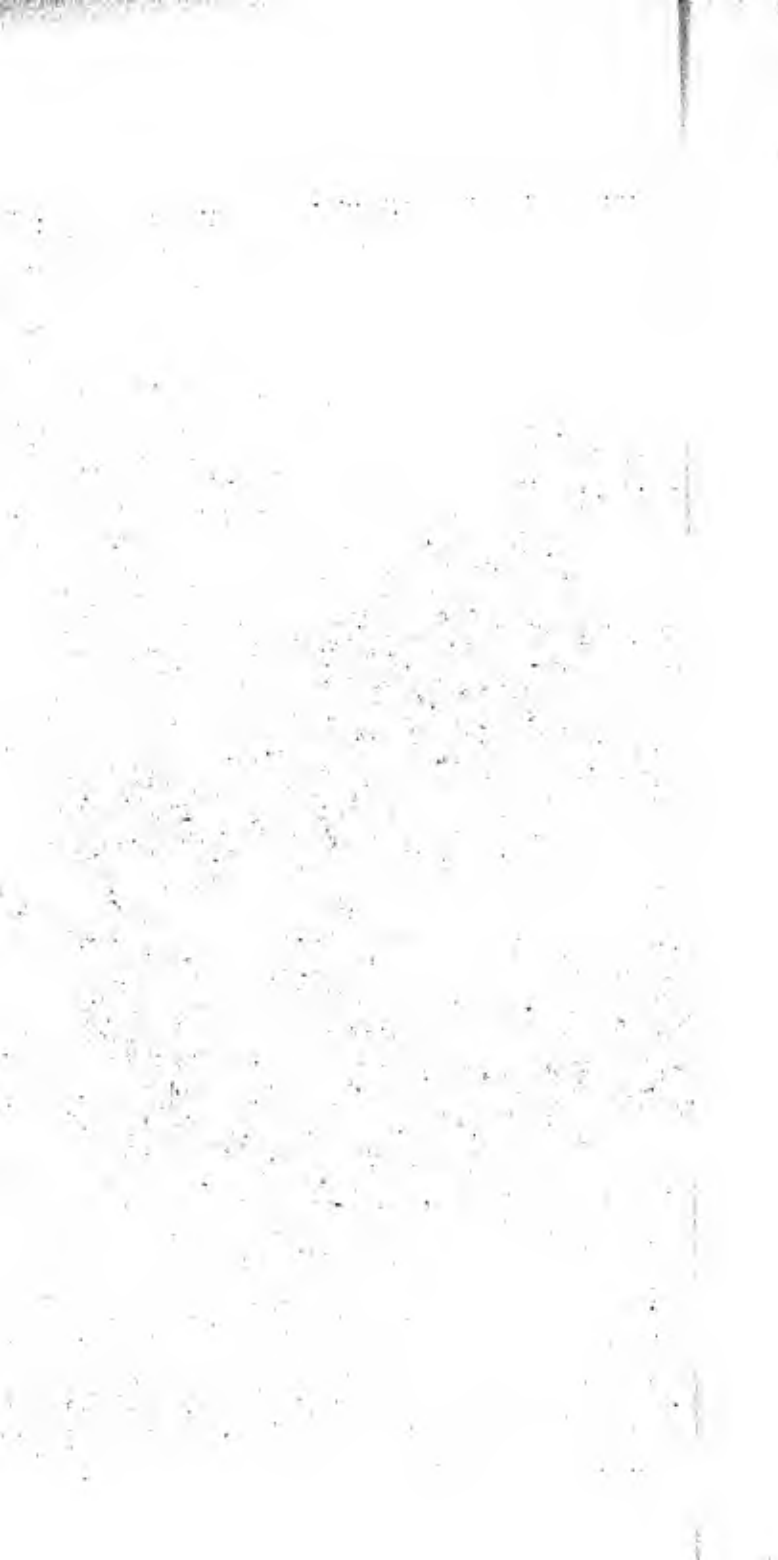
Before closing this brief outline, it may not be out of place to invite the attention of the reader to the existence of linear carvings of figures found on the slopes of the Gombigudda hill about 7 miles from Jamkhandi. They present an archaic appearance and bear an interesting parallel to the pictures found on the rocks of the Kuppagallu hill 6 miles North East of Bellary, which are assigned to the pre-historic period. These drawings at Gombigudda consist of fighting bulls with prominent humps and long pointed horns, men, camels with rider, mounted elephant, deer, antelope etc. Similar carvings and paintings on rocks are discovered in the Vindhyan and Kaunar ranges and the largest number are found in the Southern part of the Mirazpur District of the United Provinces (Arch. Sur. Memoir, No. plates XVI-XXV). Besides these, there are some isolated finds at Singhanpur in the Raigarh State of the Eastern States Agency, the Attock District of the Punjab, and Adakal Caves in Malabar. Though these linear pictures are not works of consummate

art, they present, no doubt, the beginnings of picture drawings in India and as such are very valuable to a student of Indian Art. (Vide my *Annual Report on Kannada Research in Bombay Province* for 1939-40, p. 21 ff. with sketches).

From the foregoing brief survey, it is clear that Karnatak has made a rich contribution to the growth of Indian architecture, sculpture and painting, holding a unique place of honour among the galaxy of advanced countries in the vast continent of India. The Badami-Aihole-Pattadakal region forms the starting point for the evolution of the various styles of architecture, sculpture and painting in the Dekkan and South India. Unfortunately, the subject has not received a proper treatment by the scholars so far. I hope that the above survey of the subject would inspire at least a small group of the artists in Karnatak to study the subject in detail and present their researches to the scholars for their edification and use in their studies.







Karnatak Epigraphy

Before dealing with the nature and value of Karnatak inscriptions it is worth-while to make a few observations on the origin of Indian Epigraphy in general which fully apply to the subject of Karnatak Epigraphy under treatment.

Origin of Indian Epigraphy

The origin of Indian epigraphy is veiled in obscurity. The earliest epigraphical records found in India are small square Indus Valley seals assigned to the third millennium B. C. But the script on the seals cannot be deciphered. The earliest decipherable records found are therefore the edicts of Asoka which are in the Brahmi script and which are assigned to the third century B. C. From this time to the present day there is fortunately a continuous flow of epigraphical records in India. Since no epigraphical records have been found of the intervening long period of more than two thousand years, many European scholars, who have traced the history of writing in other countries with the help of the epigraphy of those countries suppose that the ancient Hindus were not conversant with the art of writing. People of

other ancient countries like Egypt, Mesopotamia, Iran etc. who know the art of writing have left a large number of inscriptions on stone and metal, on clay and wooden tablets. Chronology of those countries rests on a safer basis than that of India and there cannot be any doubt about their inscriptions being thousands of years old. If the ancient Indians had known the art of writing they could have also left the ancient inscriptions. Allowing five hundred years for the evolution of the Brahmi script as we find it in the edicts of Asoka and taking into consideration all references to writing in the accounts of foreign travellers and in the early literatures of the Aryans who according to them could not have entered India before 1500 B. C., they have come to the conclusion that the Indians learned the use of writing in about 800 B. C. from the Semitic people in West Asia with whom they had then come in contact. If this theory is accepted, Indian Epigraphy must be said to be originated in the Maurya Period in about the Fourth Century B. C.

But absence of epigraphical records does not mean that the ancient Hindus were ignorant of the art of writing. In fact by ascribing the invention of writing to the creator Brahma they claim it as a natural invention of the remotest antiquity. As the question of the origin of epigraphy is linked

up with that of writing let us see whether the ancient Hindus were really ignorant of the art of writing and whether they borrowed the art from the Semetic people. Dr. I. J. S. Taraporewalla has discussed this question in detail and refuted all the arguments in favour of the theory of foreign origin of the Indian writing from Greek or Phoenician models or from North Semitic or South Semitic models and against the theory of indigenous origin of the script and has shown that the only alternative is to suppose that the Brahmi script is of indigenous origin. He has also shown that the Brahmi script contains groups of letters arranged exactly as one may expect from the precise phonetic analysis of Sanskrit, made in the Pratisakhya of the Vedas many centuries before the date of Asoka and that a people who could produce such masterly analysis of their language about 1000 B. C. had no reason to borrow the symbols from the Semetic script for the same sounds several centuries later from the Semitic people whose script was so imperfect.

R. B. Gourishankar Oza refuted the theory of foreign origin of the Brahmi script by quoting older references to writing in the ancient Brahmanical literature from the epics, back to the Vedas and showed that it was already known to ancient Hindus thousands of years back.

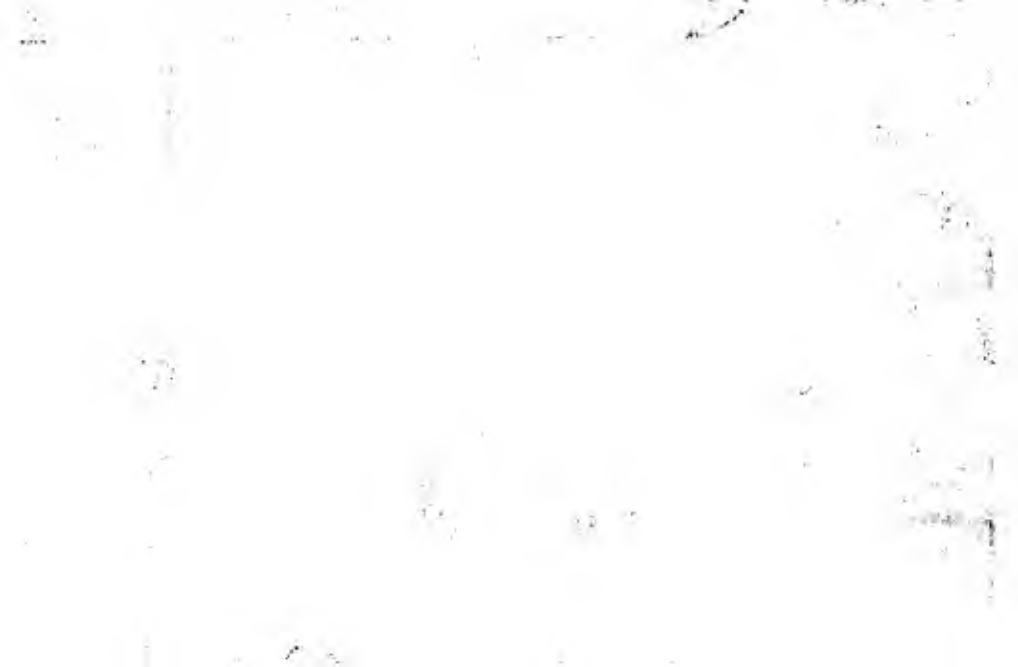
Dr. D. R. Bhandarkar, who was also convinced of the indigenous origin of the Brahmi script quoted references to writing itself in the Vedic literature in which two of the principal features of writing namely numerical notations and alphabet are discussed in detail.

Dr. Jayswal treated this theory in a third way. It is an impossibility to make the *mandala* division of the Vedas, division by authors, division by length etc. without having a system of writing. The very idea of classifying songs would occur to no one when they are known only orally and the art of writing is unknown. The conclusion seems to be inevitable at the time of the Vedic division that the art of writing must have existed. Nor could we have commentaries on the Brahmanas without the art of writing. (J. B. O. R. S. VI. 188)

3. To all these references to writing in Vedic literature I may add one more which is so convincing that it will silence all doubts about the point. It shows that the Vedic Aryans not only knew the art of writing but had also preserved Vedic manuscripts carefully. The concluding verse No. 72 of the 19th Kanda of the Atharvaveda contains the following expression*: "I now keep down the Veda in the box from which I had taken it out."

* I owe this reference to Sri D. B. Diskalkar M. A., Retired Curator of Indore Museum, Poona.

[illegible]



It means that the Vedic manuscript which was taken out probably at the time of recitation or even for copying another manuscript was placed back in the box or bundle carefully. This fact shows that manuscripts of Vedas were copied, though rarely, and carefully preserved.

Though the art of writing and preservation of Mss. was known to the Vedic Aryans we are not in possession of their written lithic or metallic documents in their contemporary and subsequent periods, reasons for which in the absence of any clue, cannot be made out at this distance of time. As stated above, Mauryan epigraphy is the definite starting point in the history of epigraphy in India. In the long chain of evolution, Kannada script comes at a late stage i. e. in the 5th-6th century A. D. i. e. during the time of the early Chalukyas of Badami. Before that, the regional or provincial characteristics had not been formed yet to be called as Kannada, Telugu or Tamil script on the basis of the *locale* of the inscriptions. But, Karnatak presents all stages of epigraphic evolution from Brahmi to the modern Kannada as the earliest Brahmi inscriptions of Asoka are found in the heart of Mysore at Siddapur, Brahmagiri and Jatingaramesvara and at Koppal in the Hyderabad State. From that time onwards, a large mass of inscriptions—Satavahana,

Kadamba, Chalukya etc. is found without any interruption. The number of inscriptions so far examined in the Madras, Mysore, Hyderabad and Bombay States falling within the limits of Karnatak exceeds 20,000. Besides these, the coins, copperplate charters and labelled or inscribed images which are in no way less important for the reconstruction of the cultural history of Karnatak should be taken into account while dealing with Karnatak Epigraphy.

Materials and types of inscriptions in Karnatak

Epigraphs are the most important source of information for the ancient history of the land. They are found written on stone, metal i. e. copper, gold, silver, clay seals and earthen pottery. The entire epigraphic material found in Karnatak can be classified broadly according to their contents under the following three heads: (1) Donative, (2) dedicative and (4) Commemorative. To the first group may be assigned the records registering gifts to temples and holy sanctuaries etc. The second group covers the vast range of inscriptions issued in favour of religious heads or priests and the last envisage the gifts made to commemorate a heroic act such as *Viragals* or *Sati* stones.

The division of epigraphs on the basis of chrono-

logy or the donors—kings, chiefs etc. is also suggested as being more logical and useful, since it helps to know the slow process of evolution in the script and drafting of inscriptions through centuries. Thus the earliest inscriptions of Karnatak are written in the Brahmi of Asoka of 3rd century B. C. Then come the Andhra inscriptions which are followed by the Pallava and Kadamba records of the 4th to 6th century A. D. These are written in a derivative of Brahmi evolved out of the cave alphabet of the Andhra inscriptions found in the caves of Western India, as e. g. Karle, Kanheri, Bedsa etc. From 6th century A. D. onwards, the epigraphical evolution may be set fourth in the following chronological groups:

- (1) Chalukya—6th to 8th cent. A. D.
- (2) Rashtrakuta—9th to 11th cent. A. D.
- (3) Later Chalukya
Yadava and Hoysala—12th to 14th
cent. A. D.
- (4) The Vijayanagara—15th to 18th cen.
A. D.

The periods are indicated by the dynastic names just to fix up the approximate duration of the different types of alphabets. The drafting of the inscriptions also changed according to the change

of time, introducing many new elements as a result of the political, religious, and social impacts that happened in the course of the succeeding centuries.

The formal elements of inscriptions however remain the same from the earliest to the latest period of epigraphical history. First the reigning king with his capital is introduced, then his subordinate chief or donor and the description of the donee and the donated land follow. Lastly imprecatory passages or verses deprecating the evil doer who destroys the gift and eulogising the person who maintains it are given together with the name of the composer of the record and the engraver on stone or metal. This is the skeleton of inscription-drafting which in course of time grew heavy with burdens of poetic descriptions of elaborate details in regard to the respective items mentioned above. Thus, the simplicity and matter-of-fact mention of the details of the deed will help to determine the age of the epigraph approximately. The records of the Kadamba and early Chalukya periods are generally simple in their structure while those of the Rashtrakuta and later Chalukya time show greater tendency for poetic descriptions of the classical type. The same plan is adopted in the records of the Hoysala and Yadava dynasties which mark the height of alphabetic and

poetic evolution in Karnatak. The Vijayanagara period ushers in a period of deterioration in art and ultimately spells a stop to the further evolution of thought and matter in inscriptions.

The Language of inscriptions

The earliest inscriptions as stated above are the edicts of Asoka and they are written in a form of Magadhi-Prakrit. Prakrit continued up to the 4th. or 5th century A. D.—the Vadagaen—Madhavpur inscription of the 1st. century A. D. the Fanavasi and Malavalli inscriptions of the 3rd century A. D. and the Chandravalli rock inscription of the 4th—5th century A. D. being written in Brahmi characters and Prakrit language. For the subsequent period, the following chart on the language of epigraphs in Karnatak will at once explain the slow growth of documentary language in Karnatak.

Chart on the Language of Epigraphs in Karnatak

- (A) I. *Earliest Tamil Inscription*:— Tirunadarkunram inscription (Travancore State). 4th Century A. D.
- II. *Earliest Kannada Inscription*:— 1. Halimidi (Mysore) inscription (5th Century A. D.)
 2. Siruguppi (Hubli Taluk, Dharwar District) inscription of Vanasatti-arasa, early 6th

Century A. D. 3. Badami inscription of Mangalesa, Saka 500 (Cave No. III).

III. *Earliest Telugu inscription*:— Tippelur record of Chola Punyakumara (Cuddapur District). 6th Century A. D.

IV. *Earliest Prakrit inscriptions*:— (1) Asokan Edicts at Maski, Siddapur, Koppal, etc. and Andhra inscriptions, (2) Vadagaon-Madhavapur pillar ins. (3) Banavasi Naga image inscription and (4) Chandravalli rock inscription of Mayur-
asarmān, etc.

V. *Earliest Sanskrit inscriptions*:— (1) Early Pallava Sanskrit charters in South India, (2) Early Kadamba and Ganga charters (4th Century A. D. onwards) etc.

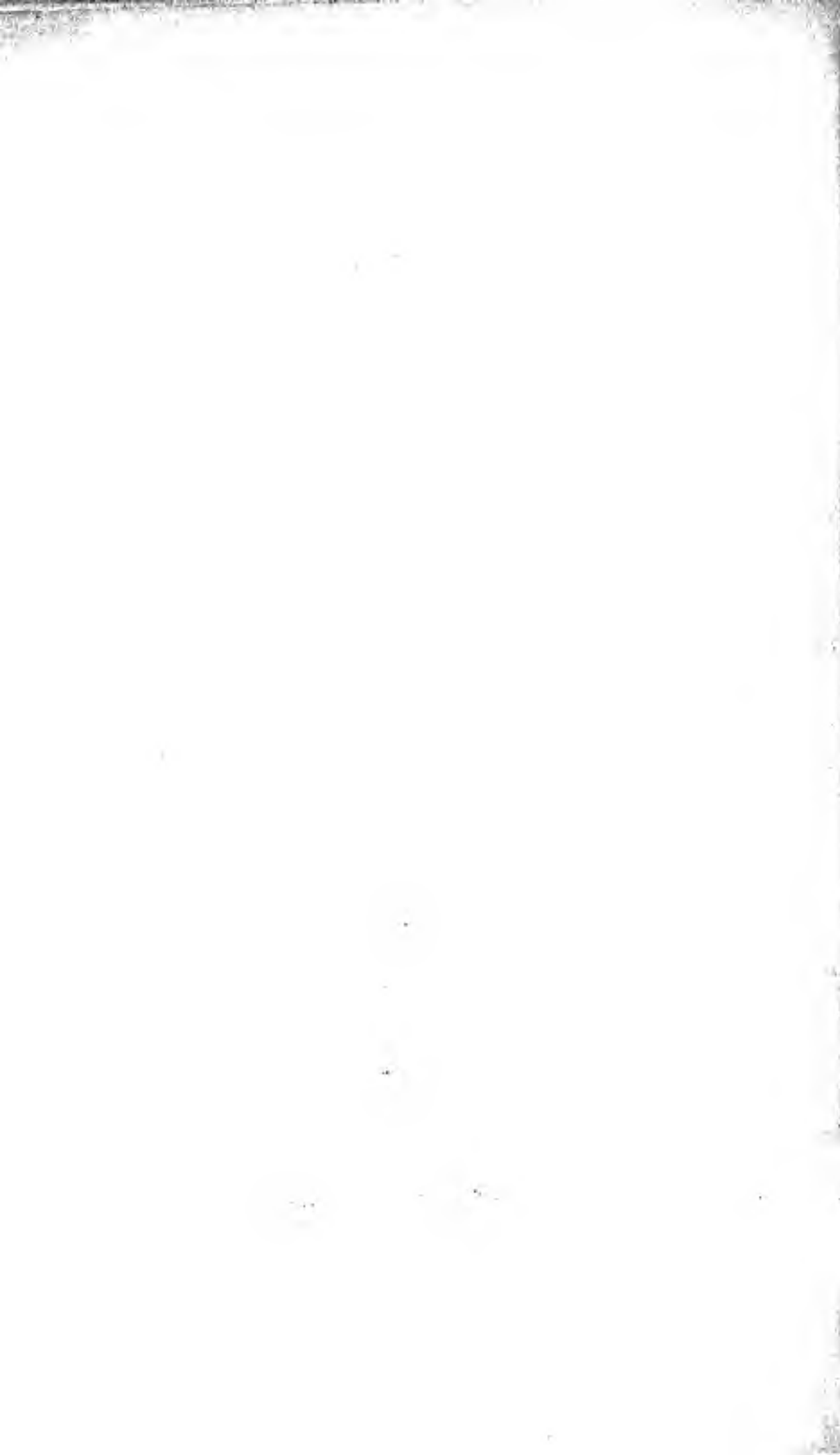
(B) Up to 4th Century A. D., the language of the inscriptions was a variety of Prakrit Pali:

(1) Asoka inscriptions were written in a form of Magadhi (3rd Century B. C.)

(2) Andhra and Western India Cave inscriptions were written in a variety of Prakrit which developed into Maharashtri Prakrit (2nd Century B. C. to 3rd Century A. D.).

(3) Pallava Prakrit Grants, Hirehadagali and May davolu inscription. Malavalli and Chandravalli

[illegible]



Prakrit inscriptions are written in Southern Prakrit (3rd and 4th Century A. D.)

Thus up to about 350 A. D. Prakrit was the court language, i. e., language intelligible to the people. The Kannada of the 6th Century A. D. and that between 4th and 6th Century A. D. must have been greatly influenced by Prakrit which was the recognised documentary (and literary) language.

(C) In about the last decade of the 4th century A. D. Prakrit was supplanted by Sanskrit. Between 4th and 6th century A. D. the court language was Sanskrit with an admixture of Prakrit and Kannada expressions in the grant portion. (See the Kadamba and Ganga inscriptions of the 4th to 6th Century A. D.). The copper-plates are invariably in Sanskrit while the stone inscriptions are in Kannada.

(D) From the 7th to 10th Century A. D. the documentary language was both Sanskrit and Kannada. Copper-plate grants retained invariably the Sanskrit idiom while the stone inscriptions were generally in Kannada.

Exceptions to (C) and (D):— 1. *Stone inscriptions:*— Talagunda inscription of Kakusthavarma in classical Sanskrit (5th Century A. D.). Aihole inscription of Pulikesin II (7th Century A. D.) etc.

Copper-plates:— Haladipur plates of a Pallava chief Gopaladeva (8th Century A. D.); Kanarese country Kanarese plates of Govinda III (A. D. 804).

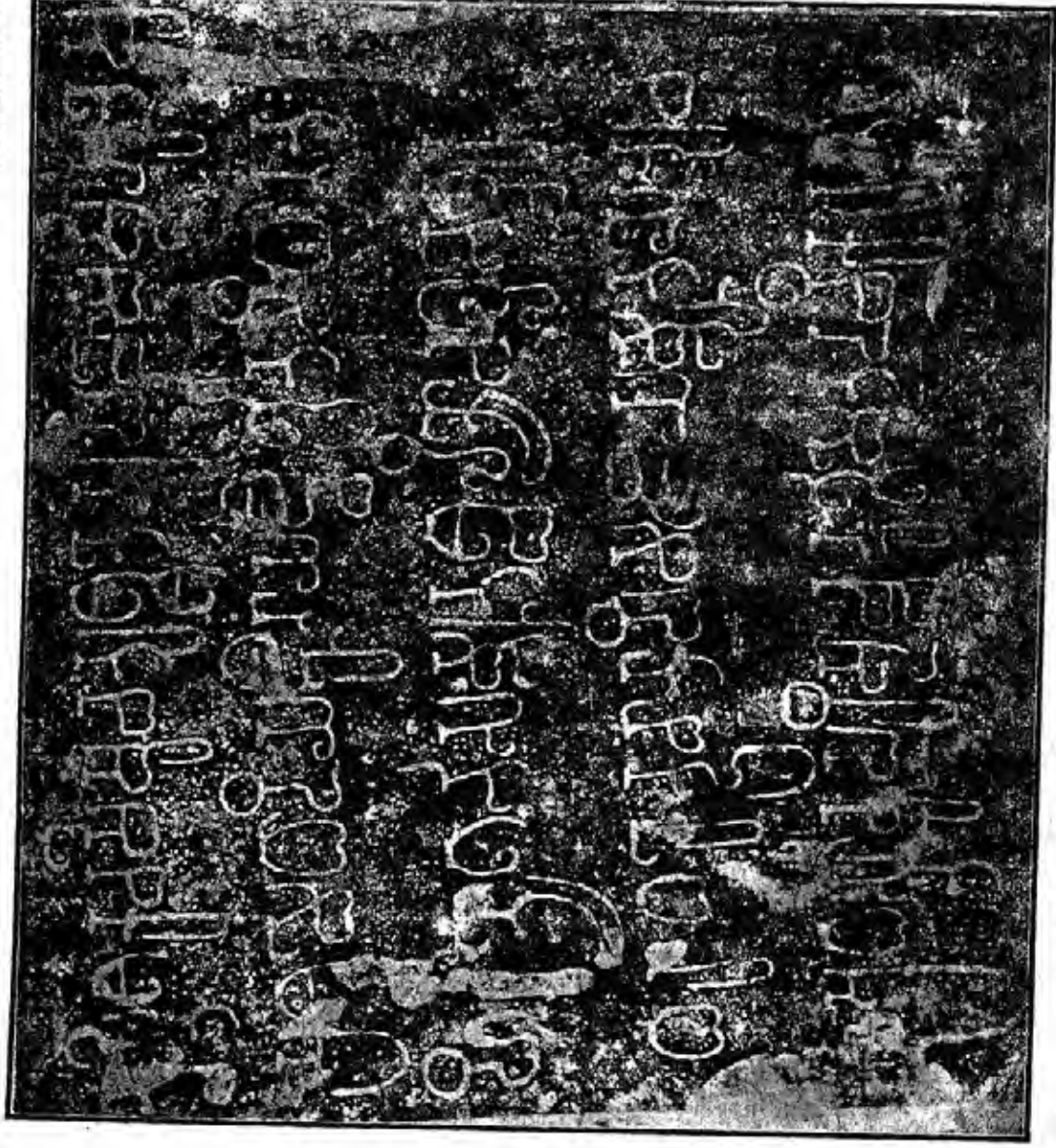
(E) This continued with varying degrees up to the end of the 13th Century A. D. with a greater mixture of Kannada in Sanskrit portions. Later on Sanskrit became the conventional documentary language of the preamble and genealogy, etc., in copper-plate charters and sometime in stone inscriptions also during the Vijayanagara period, the grant portion with the boundaries of the gift-land being given invariably in Kannada.

The eras and method of dating in inscriptions

The early inscriptions mention details of date such as the lunar month, the day or the tithi with nakshatra (in some cases), coupled with the regnal year of the king in whose reign the record was issued. In the edicts of Asoka the number of years from the death of Buddha (*Buddha-nirvana*) is given. The division of the year into three seasons is followed in the Nasik cave inscriptions:—

"*Siddham ranno Vasati putasa Sarapadimayasa sāvachhare chhate 6 gimapakhe pachame 5 divase*" (No 27). The same practice is followed in the copper-plate charters of the earlier kings of the Kadamba dynasty. The





Badami rock Inscription of Chalukya Vallabhesvara (P. 139)

records of Mrigesvaravarman and Ravivarman show this peculiarity as e. g. *Mrigisvaravarmanah.... pravar-dhanakarah samvatsarah chaturthah Varshapakshah ashtamah tithih Purnamasi*. In one inscription, the regnal year 3 is coupled with Pausa-samvatsara, Kartika bahula 10 and Uttarabhadra-nakshatra. This shows that the years were specified with the name of the lunar months, as Pausa-samvatsara which was the characteristic feature of the reckoning of the Barhaspatya cycle of twelve years. In some places, the word *maha* is prefixed to the name of the month to indicate the year. This reckoning was found in inscriptions dated earlier than A. D. 500. The other inscriptions bear only regnal years and months, tithis and week-days. The Kaliyuga era which is supposed to have started from the Mahabharata war in 3102 B. C is mentioned in the Aihole inscription of Pulikesin II along with the Saka era. The earliest mention of the Saka era is found in the Badami cliff inscription of Pulikesin I dated in Saka 465. The Saka is mentioned with the prefix *Salivahana* in inscriptions of the Chalukya period. The Chalukya Vikrama era which started in A. D. 1076, the date of coronation of Chalukya Vikramaditya VI is specified in the inscriptions of the later Chalukya and Yadava inscriptions, the latest figure being 102. In all the other inscriptions, only

the Saka era is found along with the details of the regnal year of the king, lunar month, *tithi*, *nakshatra* etc. and they admit of being calculated and verified as to their correctness.

The later inscriptions from 11th century A. D. onwards some times indulge in mentioning the number of the Saka year by the chronogram of words or the *katapayadi* system. In this case, the value of words or the *katapayadi*, in terms of numbers should be understood to arrive at the correct figure of the year, by the dictum '*amkanam vamato gatih*'. See for example:—

Saka chandra-rasa-marendra-ganite means *Chandra*= (moon) 1, *rasa*=6 and *amarendra*=14=1461. Some Persian inscriptions are dated by the system of Abjad which yield Hijra dates. The details of dates thus mentioned in inscriptions can be computed and verified with the help of old *almanacs* or books like *Indian Ephemeris* by S. K. Pillai, Sewells' Calender or S. B. Dikshit's or Ketkar's astronomical Tables etc. A good deal of discrepancy in the details is, however, found in the calculations according to these authorities which are based on the formulas of *Surya-siddhanta*, *Arya-siddhanta* and *Brahma-siddhanta*. This has been pointed out by Dr. A. Venkatasubbiah in his '*Some Saka dates in inscriptions*'; but the subject has not been fully dealt with there. Because

a particular record bears a discrepant date, it cannot be dubbed as spurious or forgerý until all possible alternatives are exhausted. It may be noted that in ancient times different authorities were adopted for different occasions and localities as e. g. for the calculation of the Dasami, Ekadasi and dvadasi, the Arya-siddhanta was the guiding authority. This and such other local and religious professions and practices should be noted before calculating a date in inscriptions. The subject requires a thorough treatment by competent authorities well-versed in the intricacies of astronomical calculations.

Value of inscriptions

The inscriptions constitute the most important branch of archaeology, supplying as they do the best foundation of history and chronology. The study of Kannada epigraphy which is still in its infancy has through the researches conducaed so far, yielded wonderful information regarding the evolution of Kannada alphabet from Brahmi through the cave alphabet and the details of the dynastic history of the country have been settled with precision and exactitude. It is due to these definite pieces of evidence that the existence of the ruling families of Karnatak from the early Kadamba to the last Vijayanagara house-holds i. e. the Tuluva and Aravidu has been

laid bare with minutest details of genealogical and chronological sequences. Several new kings and dynasties like the Bhoja's of the west coast (6th cen. A. D.) and the missing links between one power and the other have been recovered. The dynastic relationship between the early and later Chalukya families was established by the discovery of the Bodana inscription of Arikesari and that between the Rashtrakutas of Malkhed and the Chalukyas as over lords and feudatories was made known for the first time by the examination of the Karjol inscription of Saka 879 and the Natasalgī inscription of Saka 886 both belonging to the reign of Krishna III and mentioning Tail II as administering Taddevadinadu under him. The Kakhandki inscription of Saka 915 introduces Taila II as ruling from Manyakheta which established beyond doubt that the later Chalukyas of Kalyani rose from a position of subordination to the imperial rank in the Rashtrakuta dominions. Besides furnishing such historical details, the inscriptions are the veritable source of information for understanding the social, religious and economic conditions prevailing in the respective periods. Many interesting details about the dispensation of civil and criminal justice (See e. g. The Kotaumachigi inscription of Vikramaditya V published in *Epigraphia Indica* Vol XX), powers and functions of

the *agrahara* villages, the importance of the Medaeval South Indian temple as a centre of spiritual culture and learning, the condition of trade and commerce as well as the influence of social organisations etc., are added to the existing stock of our knowledge. The Nagai (Hyderabad State) inscription of the later Chalukya period gives interesting information about the upkeep of temples, the maintenance of a College and a library equipped with qualified professors and Librarians and a hostel attached to it which attended to the sanitation and health of the temple servants.

Besides furnishing archaisms and other linguistic details for the student of philology, the inscriptions add to our knowledge, particulars about the ancient geography of the region. Belvola-300, Purigere-300, Kisukadu-70, Gangavadi-96000, Nolambavadi-32000, Maseyavadi-140, Kogali-500, Taddevadi-1000, are to mention only a few, the territorial divisions mentioned in inscriptions as comprising the villages granted in them. The value of the figures given here has been a subject of much speculation, but in one inscription the doubt has been cleared by adding a number of such figures and calling them as *badamgal*=hamlets.

The hero-stones and *masti* stones that lie scattered in almost every village of Karnatak speak eloquently about the system of military organisations maintained to protect the honour and wealth.

(i. e. cows) of the village. The beautiful carvings on the *Viragals* the earliest of which may go to the 5th or 6th century A. D. depict the fight graphically in three or five panels beginning with the meeting of the opposing forces and ending with the carryings of the hero by the heavenly damsels to Kailasa where he is represented as worshipping *Isvara*.

This war-memorial peculiar to Karnatak shows the noble instincts of the soldier who laid his life for the good of his woman-folk, cows and the safety of the entire village. The *nishadhi-gals* are the memorial stones erected to perpetuate the memory of a Jain saint—male or female who died to fulfil the vow of *Sallekhana* or long fast unto death. Mention may be made here of the tomb-stones set up in honour of a saint who cut off his head by a dagger in his hand or jumped into fire on auspicious occasions like the solar eclipse and died. This act of his is depicted in stone with an inscription to describe the event. All these different forms of memorials from the dolmens of pre-historic period to the *Viragals* etc. of the late mediaeval times throw considerable light on the local customs and manners of the people.

Karnatak numismatics

The study of ancient coins is as important and valuable as that of Epigraphs for understanding the different aspects of life political, social, religious and economical. The history of India from the decline of the Mauryan power in the 2nd century B. C. until the rise of the Gupta empire depends largely on numismatic evidence. In the numismatic history of north India, land-marks of great importance are afforded by the successive foreign invasions. There are no such prominent land-marks to indicate the different periods in the history of the southern coinages. At the same time, the proportion of inscribed coins is smaller and classification depends to a great extent on arguments derived from the *provenance* of specimens, the nature of their fabric and style of their types. These coinages, have, moreover, as yet, not received a scientific treatment in any way to be compared with that which has obtained such valuable historical results from the study of coins of North India. Roman gold and silver coins are found in great numbers in South-India and Ceylon and it is probable that they were actually used as currency in these countries, while in the north, the Roman gold coins may perhaps, have

provided some of the metal for the large gold issues of the Kushanas.

Sources for the study of coins.

In order to understand the full significance of the different coins that were in currency in ancient India it is necessary to press into service all available sources for the purpose, which readily fall into three groups: (1) Literary (2) Epigraphical and (3) actual specimens of coins unearthed as Treasure-trove or in the excavation of ancient sites. The literary sources may be classified under the following eight divisions:

- (1) Vedic literature including the *Sambitas*, the *Brahmnas*, the Upanishads and the *Sutras*.
- (2) The Epics: Mahabharata and Ramayana, the Bhagavata, the Smritis and the eighteen Puranas.
- (3) Classical Sanskrit literature.
- (4) Pali literature and the Commentaries.
- (5) Jain Arddha-magadhi literature and the Commentaries.
- (6) Prakrit and Apabhramsa literature.
- (7) Dravidian Literature: Kannada, Telugu and Tamil.
- (8) The mediaeval Modi, Kannada and Persian sources.

As regards the second group of sources, the study of all Prakrit, Sanskrit and Dravidian inscriptions which form the most authentic piece of evidence need not be over-estimated. The inscriptions not only specify the coins by name but give a glimpse of fetching value of the fabrics which fluctuated according to the changing conditions of the times. They help to build up a continuous and connected account of the coins in their metallic, artistic and utilitarian aspects.

One or two instances would suffice to show how the epigraphical and literary sources would mutually help to clarify doubtful problems in numismatic studies of India. A verse in the Mahabharata:—

Kachhid-bijam cha bhaktam cha

Karshakaya avasidate |

Pratikam cha satam uriddhya dadamy-

rinamanugraham ||

had offered some difficulty in interpreting the word *Pratika*. Some scholars suggested the emendation as *pratyekam* without being able to know the significance of the term *Pratika*. That the word signified a coin is made known from Sutra of Panini, *Kamsat thithan* to which Katyayana adds a *varitika* "*Karshapanad-va pratischa*". Patanjali in his *Mahabhashya* explains the Sutra:—*Karshapanad tithan*

pratyayo va cha pratiradco vaktavyh | pratikah | pratiki
 This clearly shows that pratika was a coin and this is corroborated by the epigraphical evidences. The Nasik cave inscription (Ep. Ind. vol VIII, No. 12) records the gift of 1000 Kahapanas at Padika rate of interest, and similarly the Kanheri cave inscription No. 15 (Burgess: Arch Surv. W. I. Vol. V, pp 79-80) registers an endowment of 200 Karshapanas at Pratika rate of interest. Thus, no emendation of the text is necessary.

Similarly in the third book of the Mahabharata we come across a few verses which mention the the punch-marked coins with the symbols of Padma (lotus) and trisula (trident) punched on them.

*Tato Dvaravatim gachched niyato niyatanah
 Pindarake narah snatva labhedhahu suvarnakam
 Tasmin tirthe mahabhaga padma-lakshana lakshitah
 adyapi mudra drisyante tad-adbhutam arindama
 trisulankani padmani drisyante Kuru-nandana
 Mahadevasya sannidham tatriaya Bharatarshaba*

While speaking of the padma-tankas found in the diggings at Rachchapatnam village of the Kaikkalur Taluk of the Krishna District in 1922, Dr. J. N. Banerji of the Calcutta University suggests that the reference in the above-mentioned

extract is for the *Padma tankas* of the Yadavas who were the choice lords of Dvaravati and had the *padmatankas* among their coin series. And the extracts must be late interpolations in the *Mahabharata*. But in view of the discovery of a great variety of punch-marked coins going back to the pre-Mauryan period which have like-wise the symbols of lotus, tridents etc., it may well be posited that the reference is possibly for the pre-historic punch-marked coins and not for the late fabrics of the Yadava period (13th 14th Cent. A. D.). My only object in quoting these corroborative evidences is to emphasise on the urgency and necessity of undertaking a comprehensive study of Indian Numismatics supported by literary and Epigraphical sources.

study of Karnatak coins

The study of coins of Karnatak has not been undertaken exhaustively by any scholar so far. The reasons for this are not far to seek. Not many sites of importance have been excavated in this region and so the numismatic material with a variety of different specimens is too meagre to be pressed into service for critical analysis and study. Further, the treasure-trove coins unearthed in diggings by the villagers are not allowed to be registered in the public offices or museums to enable the scholars to

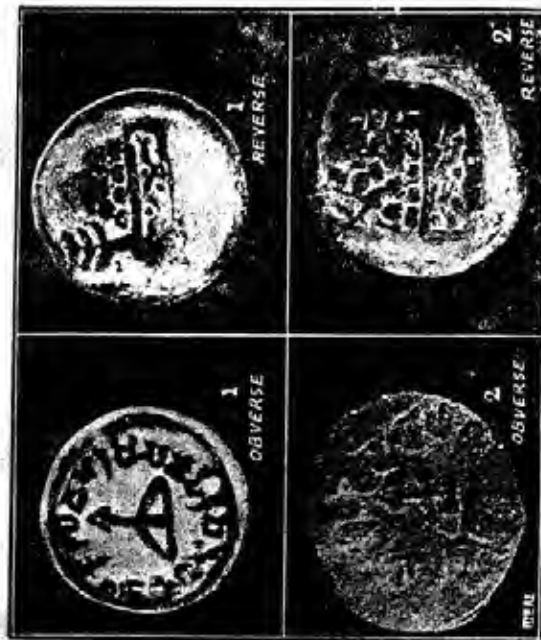
handle them in their studies. To add to this, there is not enough local enthusiasm among the people to pursue the study of such non-remunerative scientific subjects as archaeology, epigraphy, numismatics for which sumptuous patronage from government or organised associations is absolutely necessary. In the present study of the Karnatak numismatics, I confine myself to a few general remarks on the coinage of the pre-Kadamba period and then briefly touch upon the coins of Karnatak—their metal, variety etc.

The earliest indigenous coins of India are mostly in silver, very few specimens being found in copper. They are found all over India and have been discovered in large numbers in the primitive tombs or *kistevms* of South India. They are called *puranas* or *eldlings*; they are of all shapes, oblong, angular square or nearly round with punched-marks on one or both sides. To understand the significance of several symbols struck by punches on the obverse of these coins is by no means easy with the material at our disposal and the subject deserves a detailed study with reference to the numerous similar symbols found in ancient sculptures in the eastern as well as the western countries. D. B. Spooner (Arch. Surv. Report 1905-6), D. R. Bhandarkar (ibid 1913-1914, pp. 210-13, 220-226) and E. H. C. Walsh (J. B. O. R. S. 1919) are

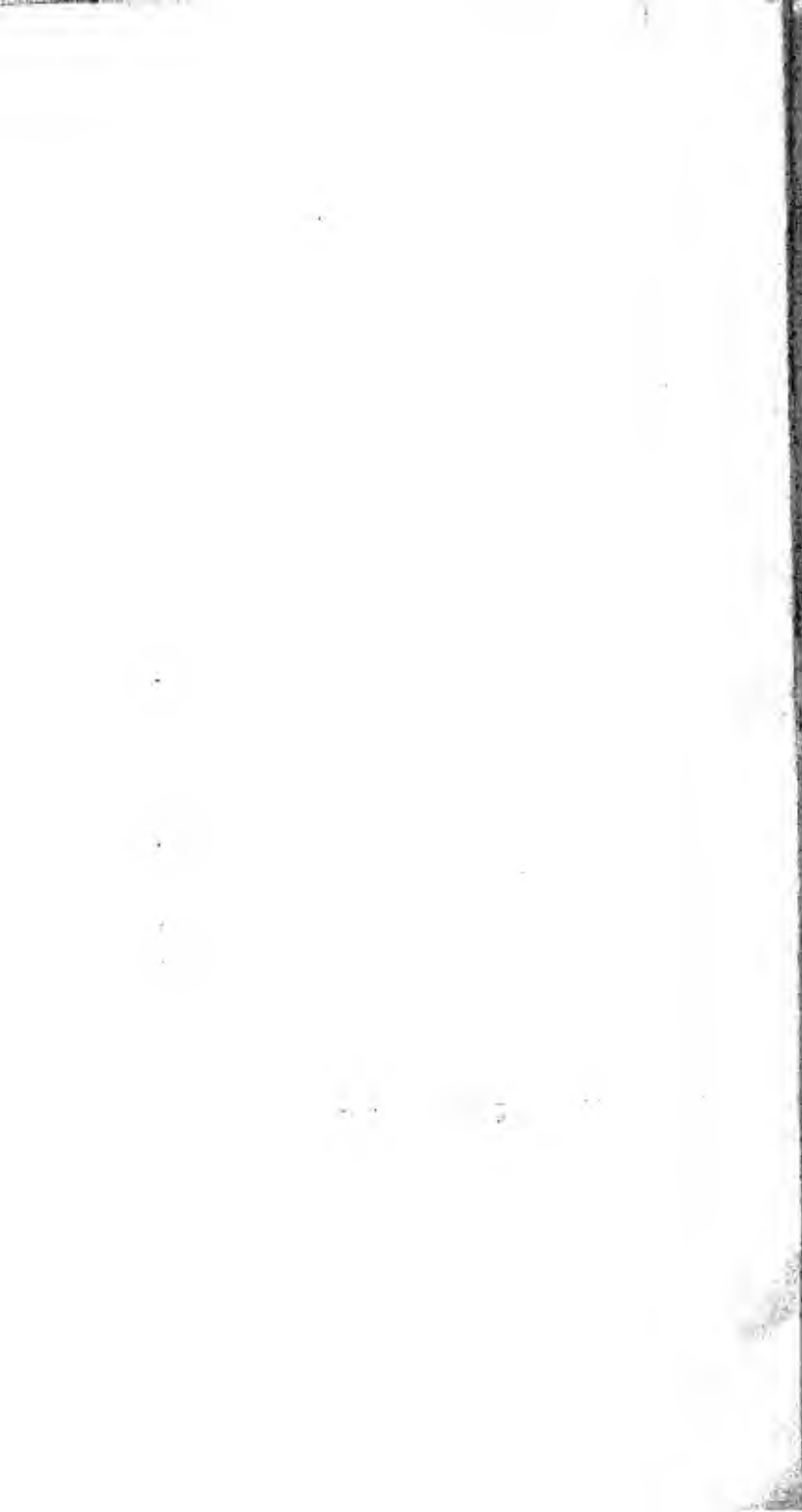
of opinion that the punch-marks on the obverse of the eldlings of all classes were put on by one authority rather than at different times. H. W. Codrington (*Ceylon Coins And Currency*, p. 16), on the other hand, holds that "these archaic coins were probably issued by local authorities—money—changers and merchants—and were submitted by them for the approval of the local king or governor, whose stamp appears on the reverse, the punch-marks on the other side, once blank, being those of the successive money-changers through whose hands they passed in the course of circulation." But a passage from *Visuddhimagga* by Buddhaghosha (5th cent. A. D.) which appears to record a genuine tradition based on early works favours the former view when it states that "the gold-smith knows by handling a *kahapana* in which village, market town or city, mountain or river bank it was made and by which craftsman". This seems to show that the punch-marks found on obverse were the characteristic symbols of the mints where they were struck. It is, however, not possible to account for the existence of groups of symbols not in one particular order, which in some cases overlap each other.

A good number of punch-marked coins has been brought to light in recent years both in South as well as in North India. Their examination and

study by scholars have not yet settled the question of their origin, purpose and value of the symbols on them; nor the period when they should have been issued. There is a general agreement among scholars that they do not belong to one date, but are assignable to different times according to the shape, artistic design, metal etc. of the coins. The punch-marked coins from Dharwar noticed in the Mysore Arch. Report 1938 show the symbols—hill, sun, bull, circle with pellet in the centre, arrow heads and taurine symbols. Among the animals, bulls, elephant, jackal, frog are seen. There is also a river-mark like the fortress and hill marks which perhaps point to the locality where the coins were minted. Some specimens coming from the Tennevelly district in the extreme South of India are oblong copper pieces bearing generally the figure of a tusker elephant facing a trident and some peculiar marks above the elephant's back and probably belong to the period of transition from punch-marking to die-striking (Mysore Arch. Report, 1935, plate XXIII). Some similar pieces bear the bull type instead of the usual elephant type. The following symbols are usually found on them: Taurine symbol, *svastika*, *damaruga*, wheels of various shapes, pot with plant, crescent, trident, semi-circle, shield, bell, square and fish. Most of these are comparable with the marks found on



Two Andhra Coins (P. 153)



the Indus-valley seals and punch-marks of the *Puranas* and with the pre-historic drawings carved on the rocks of Kuppagal near Bellary and Gombigudda near Jamkhandi (See Annual Report on Kannada Research, 1939-40). These coins can not be later than the 1st Century B. C. when double-die struck Roman and Satavahana coins were current in South India. This would show that the tradition of punch-marking which was the peculiarity of the ancient *Puranas* was continued down to the Satavahana period in South India and persisted in the coinage of Karnatak in some form or the other up to the advent of the Vijayanagara rule in the 14th Cent. A. D.

Next in Chronological order come the Andhra coins which form a separate group by themselves and by their types, symbols, metals and weight standards, they exhibit more a characteristic of the Northern coinage than Southern. They are generally cast in moulds and are stamped with symbols of a Buddhist character. The obverse bears the figure of a lion or horse or elephant etc. and the reverse has often the Buddhist cross or wheel to which the name of Ujjain symbol has sometimes been given. The coins weigh from 35 to 560 grains in order of reduplication as 35-70-140-280-560.

While writing about a New Hoard of Satavahana coins from Tarhala (Akola Dist.) consisting of 1600

pieces which are die-struck (not cast) and are of *potin* with different proportion of alloy, Prof. V. V. Mirashi, has suggested that the original home of the Satavahanas was the ancient Vidarbha (Benars) in the time of Kharavela and it was only when Gautami putra defeated Nahapana (or his descendants) and annexed his wide dominions that their capital was removed to Pratishthana (Paithan) which was more centrally situated. At a later stage they moved still further south and the modern Bellary district was known as Satavahani-hara or Satavahanirattba. (*Ep. Ind.* Vol. I, p. 6) after them From the two hoards of coins so far discovered in Central Provinces and Betar (Madhaya bharata)—one at Tarhala mentioned above and the other of 183 coins in Brahmapuri Tahasil of the Chanda district (Chanda hoard) examined by Hoernule in 1893 and published in the Proceedings of the Asiatic Society of Bengal for 1893, pp. 116-117, it is hazardous to form any conclusion in favour of the ancient Vidarbha being the home of the Satavahanas especially as a volume of inscripational, architectural and literary evidence points to their having been a southern dynasty ruling over the Central belt on the Krishna basin and as also coins travel to distant regions for trade and other purposes.

Coin-symbols

After the Andhras upto the advent of the

Kadambas, the history of southern coinage is not clear. That was the period of Tribal rule and we should expect to come across Tribal coins in the Dekkan and Karnatak like the Yaudheya and Audumbara etc. coins in North India. To the Kadamba mint is assigned the origin of the *Padmatankas* which have a louts in the centre round which are four punch-marks of smaller *Padmas*. The earliest authentic instances of the Chalukya coins are discovered in Siam and on the shore of the Island of Ramri which are attributed by Elliot to Mangalesa, or one of his predecessors before the siege of Banavasi, when the conqueror struck by the beauty of the *Padmatankas* adopted them as his model in substitution of the ruder type which formerly prevailed in the Chalukyan mint (*Coins of Southern India* by Elliot, p. 67).

From the Chalukyas of Badami onwards, the study of Karnatak coinage becomes rather easy as representative coins of different dynestic periods are discovered and examined. The collection becomes increasingly interesting and typical as we come to the Vijayanagara period when reforms were introduced in the shape, weight and material of the coins. The matrix was adopted to the exclusion of the punch (See my paper "Coinage of the Vijayanagara dynasties in the Vijayanagara Sexcentenary Commemoration Volume, p. 107). The following chart on the

coin symbols will be useful and instructive for a comparative study of South Indian coins symbol:—

- | | |
|---------------------------------------|--|
| Dynasty | |
| (1) Kadamba | “ Lotus ” marks— <i>padmas</i> , lion looking backwards. |
| (2) Early Chalukyas of Badami | Boar and lotus; Boar and five punch-marks. |
| (3) Rashtrakuta and Kalyani Chalukyas | Cup - shaped, with (i) Punched lions (ii) Punched lions and spear-head, temple (iii) Lions, lotus and goad. (iv) Lotuses and Boar— |
| | Some of them show legend in Kannada or Nagari indicating by the first letter the ruling sovereign. |
| (4) Western Ganga :- | elephant to right with or without a goad, and a floral design on the reverse. |

The Cheras and the Gangas being contiguous powers, the Gangas adopted the Chera type in their copper sereis. But the Chera bow and lamp disappear, and the elephant remains. The copper coins of the two dynasties are thick and rude. As seen on the seals and also on the coins, the Ganga elephant has a large head and lowered trunk and is different from the Andhra elephant though the latter may

have led on to the Chera elephant (Rapson's *Andhra coins*, Nos. 175 and 197; Elliot's *Coins of South India* No. 43). The Ganga elephant appears to be the prototype of the later Vijayanagara and Mysore elephants.

(5) Hoysala

The Hoysala coins bear on the obverse a *Sardula* or mythical tiger the crest of the Hoysalas standing to right with the figure of a deity standing on it with the sun and the moon at the sides; and on the reverse the legend 'Sri Nonambavadi-gonda' in three horizontal lines in old Kannada characters. In some cases *Sri Talakadu gonda* or *Malaparol gonda* is substituted (See Rice's *Mysore* 1, plate 1. Elliott's *Coins of S. I.* pl. III, M. 90). The Hoysala *Panas* and half *panas* show a human-figure with bow on the reverse, the obverse having the figure of a mythical tiger (*sardula*). The human figure probably represent the king.

(6) Vijayanagara dynasties :

The variety and types of Vijayanagara coins in gold and copper have attained greater complexities and numerous hoards have been found in different parts of Karnatak. They show different symbols which are introduced by the reigning sovereigns in their coinages according as they were Saiva or Vaishnava

in their profession. Hanuman, Garuda, bull with a sword, Uma-mahesvara, Lakhmi-narayana, Balakrishna, elephant, lion, Venkatesa were some of the common symbols found on the Vijayanagara coins. (for a detailed study of the subject, see my *Coinage of the Vijayangara Dynasties and Some Vijayanagara Copper Coins*). One interesting point in the collection may be mentioned here. A coin of Krishnadevaraya shows the figure of Venkatesa with four-hands holding conch discus, dana-mudra, resting on hip (See *Mysore Arch. Report*, 1930, pp. 68-76). The Saivas claim the deity as Siva, but this coin points to its being a Vishnu figure. The figure of Venkatesa carved on the back of the Mukti-nathesvara temple at Binnamangala in the Bangalore district, dated in A. D. 1110, bears *Jata-makuta* and *phalaksha* (third eye) and holds discus and conch in stone. Since it stands between Siva and Brahman, it is clearly Vishnu among the *Trimurtis*. The present coin thus aids to confirm the tradition of the image of the Deity at Tirupati being that of Vishnu and not of Siva.

(7) The Nayakas of Ikkeri, Chittadurga, and the Bijapur Sultans and Mahrathas also minted their own coins independently in gold, silver and copper and these are found in old families even now for examination and study.

Metals and Varieties of Coins

The early coinage consisted of smaller varieties as the business was mostly transacted on the system of barter. There are three varieties—biggar, medium and smaller—of the coins in gold and copper and silver was less used due perhaps to the scarcity of that metal in Karnatak. No extensive mines of gold, silver or copper existed in ancient India. There were some copper mines in Rajaputana and Madras Presidency but they could not supply all the quality of the metal required by the country. The indigenous supply of gold was from the mines in Assam, Hyderabad, Mysore, Malabar etc. but this was not enough to meet the demand. With the foundation of the Vijayanagara empire in the south, the coinage and coin-system of South India were placed on more definite standards.

Coins mentioned in inscriptions

The following coins are mentioned in the inscriptions of Karnatak as having been in currency; **gold**:— Varaha, Gadyana, dramma, (Cambay plates of Govinda IV, Saka 862), Suvarna (*ibid*) Honnu (Mangoli ins.), Visa, paga, pana, adda chinna (Huli ins.), pushpa (Salotgi pillar ins.), pana (Kotummachgi ins.). Besides these, Dinaras, Karshapanas (Kahapanas of Prakrit inscriptions), Kasu, Kani, Tara, Kakini,

Kapardaka, Kalanju etc. are also mentioned and their metal is either gold or silver and in some cases copper. The weight standard, and the fetching value of these different units can be determined with the aid of epigraphic and literary evidence available on the subject. The discovery of an old Persian Manuscript of 2 dozen Folios in the Library of the Kalabhavana of Banaras which contains a short description of ancient Indian coins of the Hindu and Mohamadan dynasties and of a similar manuscript in the Museum of Antiquities of Kabul reproducing the Mussulman coins, will be a valuable guide in the study of north Indian numismatics. As far as South India and Karnatak are concerned the study should be started right from the original specimens. In the present survey, only a skeleton of the work has been indicated in the limited scope and time giving the future line of investigations in the subject.

END.

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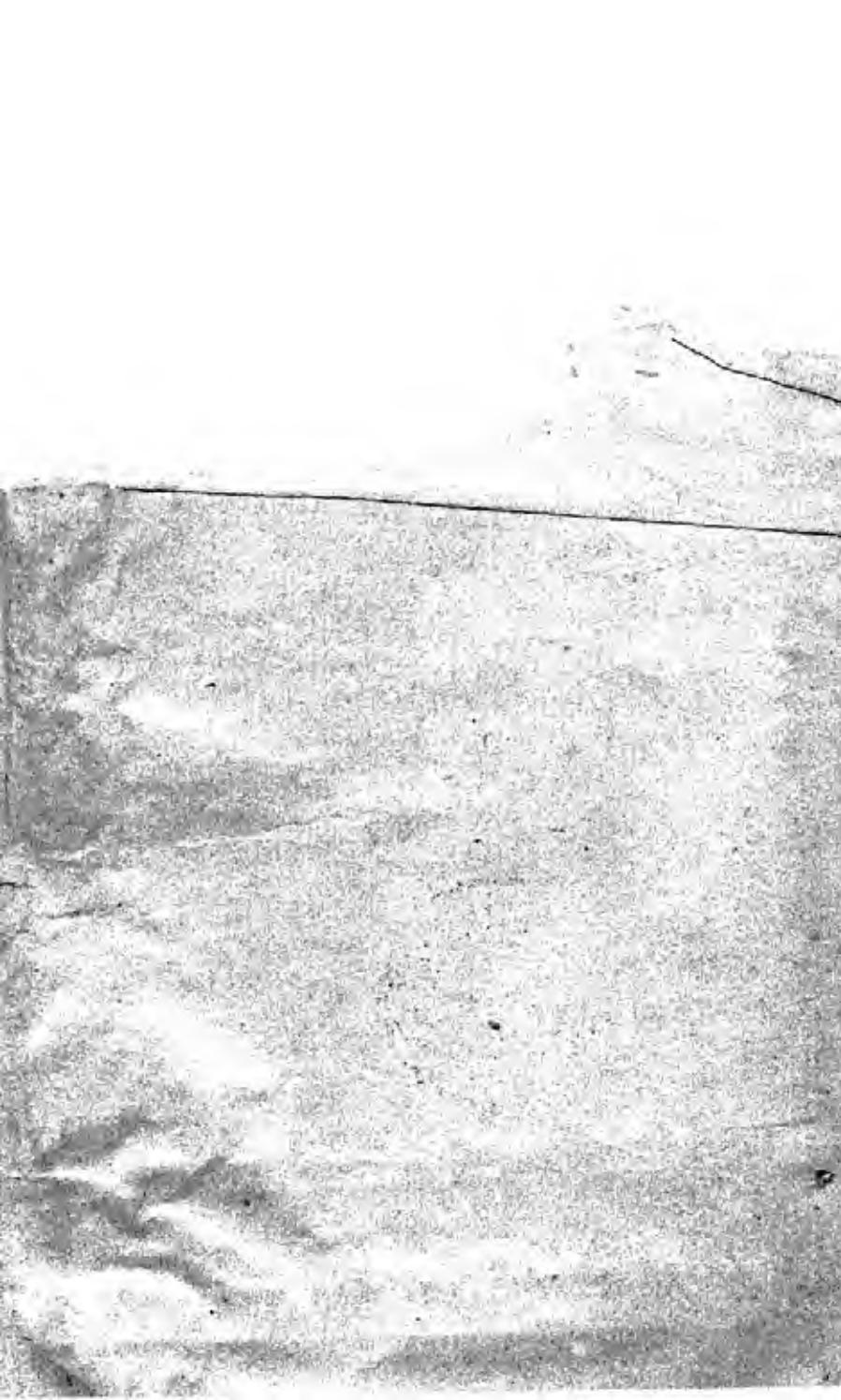
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